DENON

For U.S.A., Canada, Europe & Korea model

Ver. 1

SERVICE MANUAL

MODEL DN-D4000

DOUBLE CD PLAYER

注　意

サービスをおこなう前に、このサービスマニュアルを必ずお読みください。本機は、火災、感電、けがなどに対する安全性を確保するために、さまざまな配慮をおこなっており、また法的には「電気用品安全法」にもとづき、所定の許可を得て製造されております。
従ってサービスをおこなう際は、これらの安全性が維持されるよう、このサービスマニュアルに記載されている注意事項を必ずお守りください。

- 本機の仕様は性能改良のため、予告なく変更することがあります。
- 補修用性能部品の保有期間は、製造打切後8年です。

- **Please use this service manual with referring to the operating instructions without fail.**

- 修理の際は、必ず取扱説明書を参照の上、作業を行ってください。

- **Some illustrations using in this service manual are slightly different from the actual set.**

- 本文中に使用しているイラストは、説明の都合上現物と多少異なる場合があります。

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X0171V.01 DE/CDM 0303

SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

LASER RADIATION

Do not stare into beam or view directly with optical instruments, class 3A laser product.

注　意　サービス、点検時には次のことにご注意願います。

◉注意事項をお守りください！

サービスのとき特に注意を必要とする個所については、キャビネット、部品、シャーシなどにラベルや捺印で、注意事項を表示しています。これらの注意書きおよび取扱説明書などの注意事項を必ずお守りください。

◉感電に注意！

(1) このセットは、交流電圧が印加されていますので、通電時に内部金属部に触れると感電することがあります。従って通電サービス時には、絶縁トランスの使用や手袋の着用、部品交換には、電源プラグを抜くなどして、感電にご注意ください。

(2) 内部には、高電圧の部分がありますので、通電時の取扱には、十分ご注意ください。

◉指定部品の使用！

セットの部品は難燃性や耐電圧など安全上の特性を持ったものとなっています。従って交換部品は、使用されていたものと同じ特性の部品を使用してください。特に配線図、部品表に⚠印で指定されている安全上重要な部品は必ず指定のものをご使用ください。

◉部品の取付けや配線の引きまわしは、元どおりに！

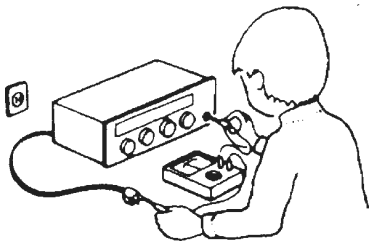
安全上、テープやチューブなどの絶縁材料を使用したり、プリント基板から浮かして取付けた部品があります。また内部配線は引きまわしやクランパーによって発熱部品や高圧部品に接近しないように配慮されていますので、これらは必ず元どおりにしてください。

◉サービス後は安全点検を！

サービスのために取り外したねじ、部品、配線などが元どおりになっているか、またサービスした個所の周辺を劣化させてしまったところがないかなどを点検し、外部金属端子部と、電源プラグの刃の間の絶縁チェックをおこなうなど、安全性が確保されていることを確認してください。

（絶縁チェックの方法）

電源コンセントから電源プラグを抜き、アンテナや、プラグなどを外し、電源スイッチを入れます。500V絶縁抵抗計を用いて、電源プラグのそれぞれの端子と、外部露出金属部〔アンテナ端子、ヘッドホン端子、マイク端子、入力端子など〕との間で、絶縁抵抗値が1MΩ以上であること、この値以下のときは、セットの点検修理が必要です。



注　意　安全上重要な部品について

本機に使用している多くの電気部品、および機構部品は安全上、特別な特性を持っています。この特性はほとんどの場合、外観では判別つきにくく、また、もとの部品より高い定格（定格電力、耐圧）を持ったものを使用しても安全性が維持されるとは、限りません。安全上の特性を持った部品は、このサービスマニュアルの配線図、部品表につぎのように表示していますので、必ず指定されている部品番号のものを使用願います。

(1)配線図… ⚠マークと黒色で薄く塗りつぶすことにより表示しています。

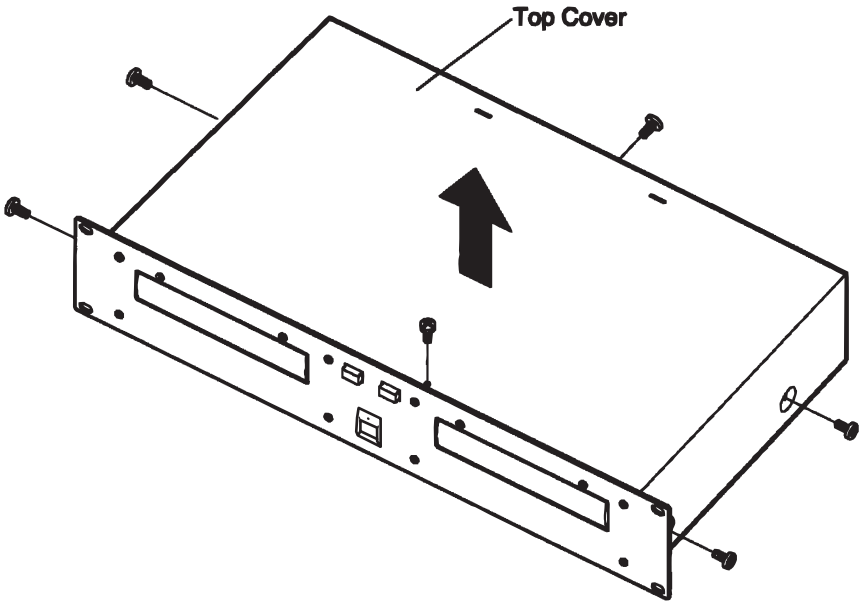
(2)部品表… ⚠マークで表示しています。
指定された部品と異なるものを使用した場合には、感電、火災などの危険を生じる恐れがあります。

DISASSEMBLY

(Follow the procedure below in reverse order when reassembling)

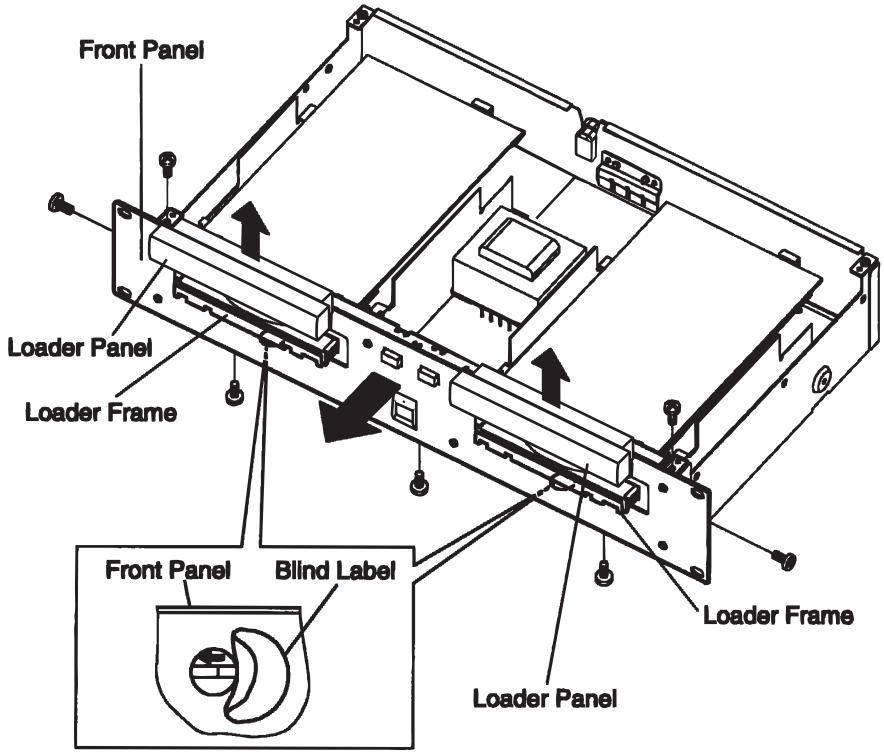
1. TOP COVER

(1) Remove 4 screws on the both sides, and 1 screw on rear side, then remove 1 upper screw.
(2) Pull up Top Cover.



2. FRONT PANEL

(1) Detach 2 Blind Labels on the bottom chassis.
(2) Move CD Mecha Rack in the arrow direction through the label detached chassis opening. Loader Frame comes out.
(3) Pull up Loader Panel while pulling it towards front.
(4) Remove 2 upper screws and 3 lower screws, and 2 screws on both sides.
(5) Detach Front Panel.

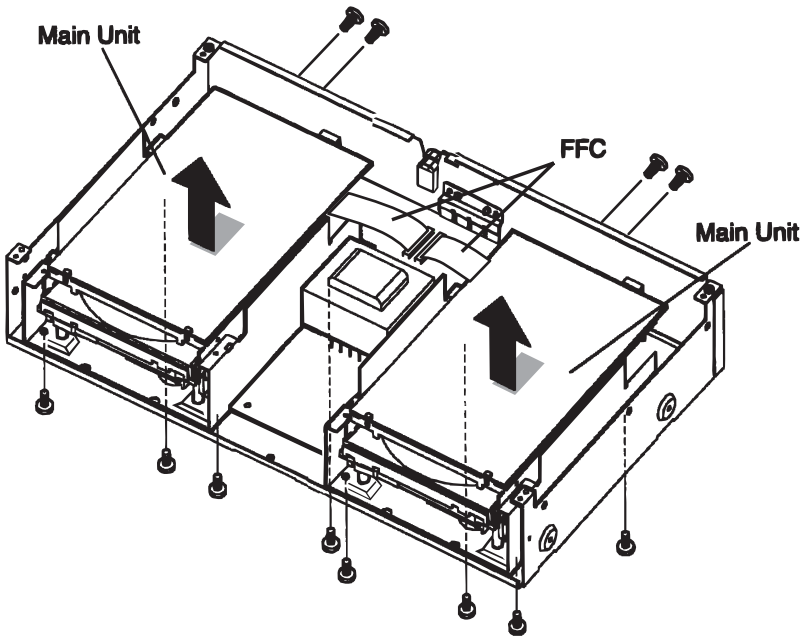


3. MECHANISM UNIT

(1) Disconnect FFC cable.
(2) Rrmove 8 lower screws
(3) Remove 4 screws on rear side.

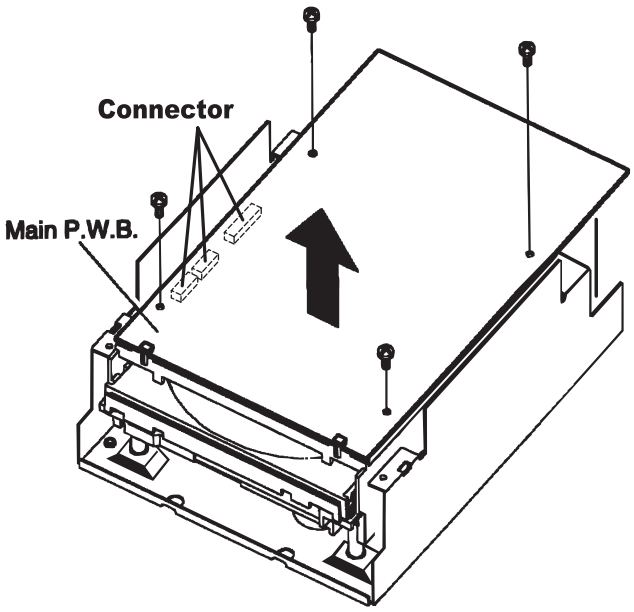
NOTES:

(a) Do notpull out aslant to prevent the FFC cable from damage.
(b) Do not fail to pull out AC cord from wall outlet befor disconnecting the FFCcable. If the ACcord is remained plugged into wall outlet, the power is kept supplied in the unit, which may cause danger.



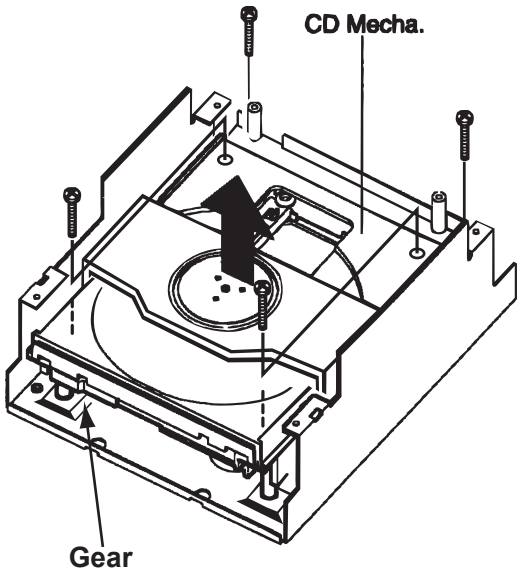
4. MAIN P.W.B.

(1) Remove 4 screws.
(2) Disconnect Connector.
(3) Detach Main P.W.B.



5. CD MECHA.

(1) A gear is turned and a tray is opened.
(2) Remove 4 upper screws.
(3) Detach CD Mecha.

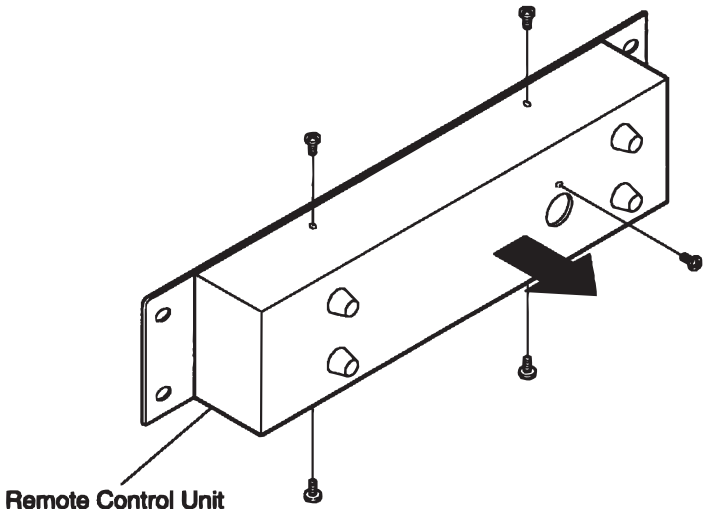


6. COVER (REMOTE CONTROL UNIT)

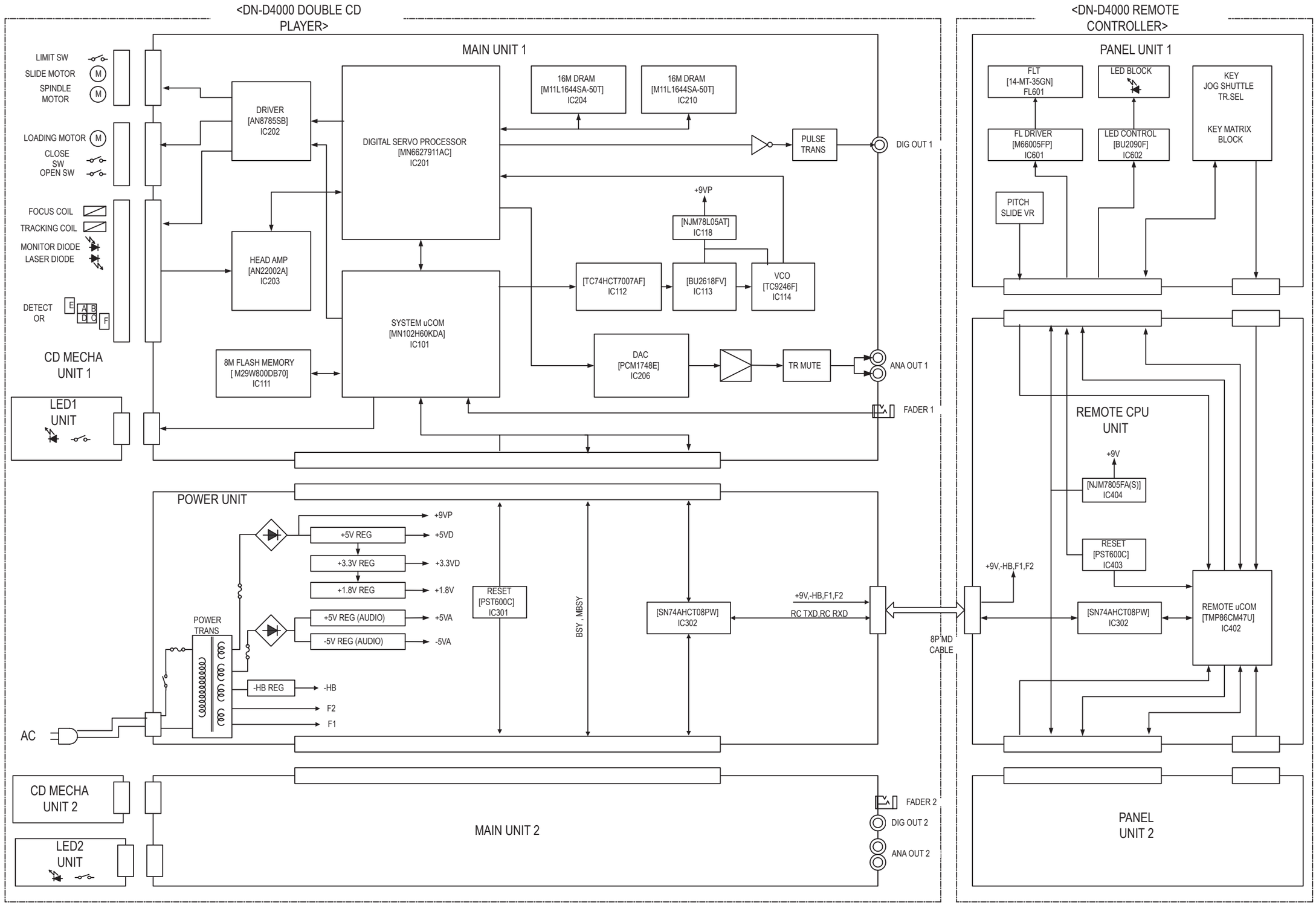
(1) Remove 5 screws.

NOTE:

(a) Remote Control Unit and its back panel are connected with cables, so pay attention when removing the back panel.



BLOCK DIAGRAM



SERVICE PROGRAM

Required Measuring Implement

1. Reference disc (TCD784 or CO-74176)

1. What is Service Program

Service program is a special program intended for confirming servo functions etc.

2. Contents of Service Program

Switch on the power while pushing the CD1's PITCH BEND + button and CD2's OPEN/CLOSE button at the same time. After actuating the servo program, select an aiming process number with the SELECT knob, A1 button, or A3 button. Press the SELECT knob to execute the selected process, the process number is then displayed on the track indicator of the display. To exit from the service program, just switch off the power.

	Function (Character-display)	Contents
SELECT knob	μcom Version check (Version No.)	Check Version with JOG dial. 1. System μcom version No.: "SysVerXXXX" 2. RC μcom version No.: "RC_VerXXXX"
	Error Code Check (Error Data)	Turn the JOG dial to display the logging error codes in the occurred order. "ErrXX_E * * * " XX : occurred order E * * * : error code 10 error logs are memorized at maximum. Kinds of Error Code, displayed Error Code Table Pressing SELECT knob enters to data erase mode. ("Err Clear?" is displayed.) If the SELECT knob is pushed again, the memorized error data are cleared.
	Total Running Time (Total_Time)	Total time span of servo function that counted by the hour is displayed. "R.Tim XXXXH" Note: No time is counted if disc tray is opened within 59 minutes. Pressing SELECT knob enters to data erase mode. ("Time Clear?" is displayed.) If the SELECT knob is pushed again, the memorized time data are cleared.
	Automatic Servo Adjustment call	Starts automatic servo adjustment when the SELECT knob is pushed, and after completing the adjustment, sort of the used disc is indicated. Data is selectable with the JOG dial. "Servo_Data" 1. Focus gain data 2. Focus balance data 3. Focus offset data 4. Tracking gain data 5. Tracking balance data 6. Tracking offset data

	Function (Character-display)	Contents
SELECT knob	Block Error Rate Check	Loading a disc by OPEN/CLOSE button. Press the PLAY/PAUSE button. B.E.R. is displayed. "E.Rate_XXX XXX : Block Error Rate You can select the track by the JOG DIAL.
	Servo Check	Starts automatic servo checking when the SELECT knob is pushed. Loading a disc by OPEN/CLOSE button. "Lchk_Open" : Disc Tray is opened. "Lchk_Wait" : During check. "Lchk_OK!!" : Disc Tray is opened. "LchkErr *** " : Error(E ***) is occurred.
	Illumination Check	All illuminations are lit. All illuminations can be turned off to push the SELECT knob. Press the SELECT knob again, all illuminations can be lit.

Adjustment Item	Adjustment Value indication at character portions.
Focus Gain	0576 ~ 2304
Focus Balance	-050 ~ +050
Focus Offset	-005 ~ +005
Tracking Gain	0392 ~ 1569
Tracking Balance	-025 ~ +025
Tracking Offset	-005 ~ +005

*** Reference data.**

3. TEST MODE

	Process No. (TRACK Indication)	Function (Character-display)	Contents
A1 button	-	Heat Run (H/R1Normal)	Starting with the PLAY/PAUSE button, it repeats open/close of the tray and playback. All tracks are played back if the track count is less than 20. Only the first and last tracks are played back if the tracks are more than 21. When any errors, it stops and indicates error code (see Error Code Table).
A2 button	-	Chucking Test (H/R2_Tray)	Starting with the PLAY/PAUSE button, it repeats open/close of the tray, servo on, and TOC read. The display shows the number of the tray operation. When any errors, it stops and indicates error code (see Error Code Table).

4. Error Code Table

Error Code	CONTENTS
E001	Unable to close the loader tray in the regulation time.
E002	Unable to open the loader tray in the regulation time.
E003	Inner circle switch ON error even if the time is over.
E004	Inner circle switch OFF error even if the time is over.
E005	The focus offset adjustment result is outside the regulation range.
E006	Unable to adjust the focus offset in the regulation time.
E007	The tracking offset adjustment result is outside the regulation range.
E008	Unable to adjust the tracking offset in the regulation time.
E009	The FE peak is outside the regulation range.
E00A	The FE peak is outside the regulation range.
E00B	Unable to adjust the focus rough gain in the regulation time.
E00C	The focus rough gain is outside the regulation range.
E00D	Unable to actuate focus in the regulation time.
E00E	Unable to actuate tracking in the regulation time.
E00F	Unable to adjust the tracking rough gain in the regulation time.
E010	The tracking rough gain is outside the regulation range.
E011	Unable to adjust the tracking balance in the regulation time.
E012	The tracking balance adjustment result is outside the regulation range.
E013	Focus servo down during automatic adjustment.
E014	Focus servo down during automatic adjustment.
E015	Unable to adjust the focus balance in the regulation time.
E016	The focus balance adjustment result is outside the regulation range.
E017	Track servo down during automatic adjustment.
E018	Unable to adjust the focus fine gain in the regulation time.
E019	The focus fine gain is outside the regulation range.
E01A	Unable to adjust the tracking fine gain in the regulation time.
E01B	The tracking fine gain is outside the regulation range.
E01C	Unable to adjust automatically in the regulation time.
E01D	Unable to read the subcode Q in the regulation time.
E01E	Unable to read the TOC in the regulation time.
E01F	Focus servo down during search (over the regulation time).
E020	Track servo down during search (over the regulation time).
E0216 *	Servo error during search.
E0213 *	Search error (over the regulation time).
E022	Discontinuity occurred, during write to the DRAM.
E023	The error which cannot be corrected to the read data.
E024	Unable to do the level detect.
E025	Unable to join data in the regulation time.
E026	The error rate when recording on the memory is over the regulation value.
E027	The subcode jump more than regulation.
E028	Servo error when power is turned on.
E029	Subcode Q error.
E030	Inter face error for both drives.

μCOM VERSION UPGRADE

System μcom can be upgraded in the following manner.

Version Upgrade Method

1.Record the version upgrade software on a CD-R or CD-RW disc,
only as one file with the format ISO9660 Mode-1.
The file name of the supplied version upgrade software should be used as is and this disc needs to finalize.

2.Hold the disc by the edges and place it on the disc tray.

3.Press the OPEN/CLOSE button to start the version upgrade.
"**Version Up**"→"**Push Play!**" "**xxxx->XXXX**" are displayed.
xxxx : current version
XXXX : upgrade version

4.Press the PLAY/PAUSE button.
"**Now Writing**" → "**Writing-XXX**" are displayed.
XXX : count up from 000 to161

5.When the version upgrade is finished, "**Complete!**" is indicated.

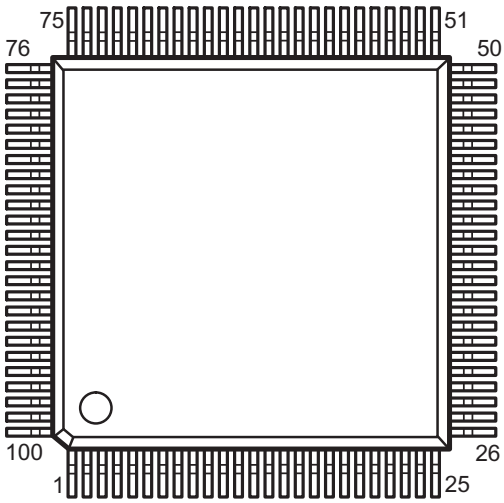
6.Turn off the power once and turn on again.
Press the OPEN/CLOSE button and remove the disc.

NOTE: When the power is turned off before "**Complete!**" is displayed, μcom version is not written correctly.

SEMICONDUCTORS

● IC's

MN102H60KDA
(IC101)



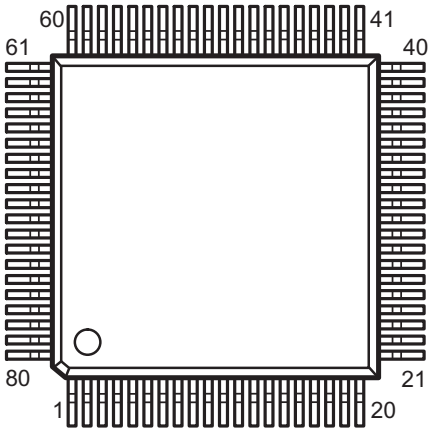
MN102H60KDA Terminal Function

Pin No.	Pin Name	Symbol	I/O	DET	Ext	Res	Ini	Function
1	P60, WAIT, SBT2	PCDMUTE	O	-	Pd	L	L	Mute for analog 'L': Mute ON
2	P61, _RE	RD-	O	-	Pu	H	-	Read signal
3	P62, _WEL	WR-	O	-	Pu	H	-	Write signal
4	P63, _WE, _WEH	Reserved	O	-	-	Hi-Z	L	Not used.
5	_CS0,TM13OA	FLASHROMCS-	O	-	Pu	H	-	Chip select signal (MASK ROM operation : Input port)
6	_CS1, TM13OB	Reserved	O	-	-	Hi-Z	L	Not used.
7	_CS2, TM14OA	Reserved	O	-	-	Hi-Z	L	Not used.
8	_CS3, TM14OB	PLOAD	O	-	-	Hi-Z	H	OPEN/CLOSE signal (PWM out put) (During Pnrst= 'L', out put PWM(50%))
9	P54, _BREQ	Reserved	O	-	-	Hi-Z	L	Not used.
10	P55, _BRACK	Reserved	O	-	-	Hi-Z	L	Not used.
11	P56, ALE, _ALE, _BSTRE, TM15IA	MON2	I	-	-	Hi-Z	-	Monitor signal 2
12	P57,_WORD	WORD-	I	-	L	L	-	Data bit bus width select 'L': 16bit
13	P20,A00,SBT2	A00	A/O	-	-	Unfix	-	Address bus
14	P21,A01,SBI2	A01	A/O	-	-	Unfix	-	Address bus
15	P22,A02,SBO2	A02	A/O	-	-	Unfix	-	Address bus
16	P23,A03	A03	A/O	-	-	Unfix	-	Address bus
17	Vdd	Vdd	-	-	-	-	-	Power supply(+3.3V)
18	BOSC,BIBT1,BIBT2, PB0	Reserved	O	-	-	L	L	Not used.
19	Vss	Vss	-	-	-	-	-	GND(0V)
20	XI,PB1	PCE	O	-	Pd	L	L	Latch output
21	XO	XO	-	-	-	-	-	Not used. OPEN
22	Vdd	Vdd	-	-	-	-	-	Power supply(+3.3V)
23	OSCI	OSCI	I	-	-	-	-	Not used.
24	OSCO	OSCO	O	-	-	-	-	OSCI output
25	MODE	MODE	I	-	L	L	-	Mode select 'L': Processor mode

Pin No.	Pin Name	Symbol	I/O	DET	Ext	Res	Ini	Function
26	P24,A04,TM15IA	A04	A/O	-	-	Unfix	-	Address bus
27	P25,A05	A05	A/O	-	-	Unfix	-	Address bus
28	P26,A06	A06	A/O	-	-	Unfix	-	Address bus
29	P27,A07	A07	A/O	-	-	Unfix	-	Address bus
30	P30,A08,_KI0	A08	A/O	-	-	Unfix	-	Address bus
31	P31,A09,_KI1	A09	A/O	-	-	Unfix	-	Address bus
32	P32,A10,_KI2	A10	A/O	-	-	Unfix	-	Address bus
33	P33,A11,_KI3	A11	A/O	-	-	Unfix	-	Address bus
34	AVDD	AVDD	-	-	-	-	-	Analog power supply terminal
35	P34,A12,_KI4	A12	A/O	-	-	Unfix	-	Address bus
36	P35,A13,_KI5	A13	A/O	-	-	Unfix	-	Address bus
37	P36,A14,_KI6	A14	A/O	-	-	Unfix	-	Address bus
38	P37,A15,_KI7	A15	A/O	-	-	Unfix	-	Address bus
39	P40,A16	A16	A/O	-	-	Unfix	-	Address bus
40	P41,A17	A17	A/O	-	-	Unfix	-	Address bus
41	P42,A18	A18	A/O	-	-	Unfix	-	Address bus
42	P43,A19	A19	A/O	-	-	Unfix	-	Address bus
43	Vref-	Vref-	-	-	-	-	-	Standard analog power supply
44	P44,AN4,A20	POPEN	I	-	-	Unfix	-	OPEN switch 'L': Switch ON
45	P45,AN5,A21	PCLOSE	I	-	-	Unfix	-	CLOSE switch 'L': Switch ON
46	P46,AN6,STOP,A22	PLIMITSW	I	-	-	Hi-Z	-	Inner circle SW 'L': Switch ON
47	P47,AN7,WDOUT, A23	PCDSEL	I	-	H/L	H/L	-	CD mecha select switch 'L': Mecha 1 / 'H': Mecha 2
48	P80,TM14OA	PEJECTSW	I	-	Pu	H	-	Eject switch 'L': Switch ON
49	P81,TM14OB	PTLED	O	-	Pd	L	L	Toray LED 'H': Light 1 / 'L': Turn Off
50	P82,TM0IO,SBI2, SBT3,SCL3	PDMUTE	O	-	Pu	H	H	Mute for digital 'H': Mute ON
51	P83,TM4IO,SBI3	RxD	I	-	Pu	H	-	Serial port (Receive) (76.8kbps 5V -> 3.3V)
52	P84,TM7IO,SBO3, SDA3	TxD	O	-	Pu	H	H	Serial port (Transmission) (76.8kbps , Use ATC function)
53	P85,TM9IOA,SBO2, SBT4,SCL4	PMD	O	-	Pu	L	L	DAC(PCM1748) control signal : Data
54	Vref+	Vref+	-	-	-	-	-	Standard analog power supply
55	P86,TM9IOB,SBI4	PMECHRxD	I	-	-	Hi-Z	-	Serial port (Receive)
56	P87,TM9IC,SBO4, SDA4	PMECHTxD	O	-	-	Hi-Z	H	Serial port (Transmission) (76.8kbps , Use ATC function)
57	P90,TM8IOA,BIBT1, _DMAREQ1	PMC	O	-	Pd	L	L	DAC(PCM1748) control signal : Clock
58	P91,TM10IOA, BIBT2,_DMAACK1	PML	O	-	Pd	L	L	DAC(PCM1748) control signal : Latch
59	P92,TM10IOB, _DMAREQ0	PLRCK	I	Ed	-	Hi-Z	-	LRCK : Use for time code creation during MP3 playback.
60	P93,TM10IC, _DMAACK0	PNRST	O	-	Pd	L	L	Round IC reset signal
61	Vss	Vss	-	-	-	-	-	GND(0V)
62	P94,AN0	PMBSYOUT	O	-	-	Hi-Z	H	Mechanism microcomputer Communication Busy signal output 'H':BUSY
63	P95,AN1	PMBSYIN	I	-	-	Hi-Z	-	Mechanism microcomputer Communication Busy signal input
64	P96,AN2	PRCBSYOUT	O	-	-	Hi-Z	H	Communication Busy signal output between RC and Mecha 'H':BUSY

Pin No.	Pin Name	Symbol	I/O	DET	Ext	Res	Ini	Function
65	P97,AN3	PRCBSYIN	I	-	-	Hi-Z	-	Communication Busy signal input between RC and Mecha
66	Vdd	Vdd	-	-	-	-	-	Power supply(+3.3V)
67	P70,SBT0,_RAS	PMCLK	O	-	-	Hi-Z	H	DSP interface Clock (clock synchronous formula)
68	P71,SBI0,_CAS,_LCAS	PSTAT	I	-	-	Hi-Z	-	DSP interface Reception (clock synchronous formula)
69	P72,SBO0,_UCAS	PMDAT	O	-	-	Hi-Z	H	DSP interface Transmission (clock synchronous formula)
70	P73,SBT1,DUMX	PTXTCLK	O	-	-	Hi-Z	H	Use during CD-TEXT data read (clock synchronous formula)
71	P74,SBI1	PTXTD	I	-	-	Hi-Z	-	Use during CD-TEXT data read (clock synchronous formula)
72	P75,SBO1	PMLD	O	-	-	Hi-Z	H	DSP interface latch
73	TEST1	TEST1	I	-	Pu	-	-	Pull up 33 - 50K
74	TEST2	TEST2	I	-	Pu	-	-	Pull up 33 - 50K
75	_NMI	_NMI	I	Lv	Pu	H	-	Need to pull up
76	PA0,_IRQ0	PBLKCK	I	Ed	-	Hi-Z	-	Sub code clock interruption
77	PA1,_IRQ1	PDQSY	I	Ed	-	Hi-Z	-	CD-TEXT DQSY Interruption
78	PA2,_IRQ2	PFADECUE	I	-	Pu	H	-	Fader signal input (CUE) 'L' : Input YES
79	PA3,_IRQ3	PFADER ST	I	-	Pu	H	-	Fader signal input (PLAY) 'L' : Input YES
80	PA4,_IRQ4,TM15IB	PCHGOFT	O	-	Pu	H	L	Off track signal
81	PA5,ADSEP	ADSEP	I	-	H	H	H	H': Address data separation mode / 'L': Address data common mode
82	_RST	RST-	I	Lv	-	L	-	Reset signal 'L': RESET
83	Vdd	Vdd	-	-	-	-	-	Power supply(+3.3V)
84	P00,D00,AD00	D00	D/O	-	-	Hi-Z	-	Data bus
85	P01,D01,AD01	D01	D/O	-	-	Hi-Z	-	Data bus
86	P02,D02,AD02	D02	D/O	-	-	Hi-Z	-	Data bus
87	P03,D03,AD03	D03	D/O	-	-	Hi-Z	-	Data bus
88	P04,D04,AD04	D04	D/O	-	-	Hi-Z	-	Data bus
89	P05,D05,AD05	D05	D/O	-	-	Hi-Z	-	Data bus
90	P06,D06,AD06	D06	D/O	-	-	Hi-Z	-	Data bus
91	P07,D07,AD07	D07	D/O	-	-	Hi-Z	-	Data bus
92	Vss	Vss	-	-	-	-	-	GND(0V)
93	P010,D08,AD08,TM8IOB	D08	D/O	-	-	Hi-Z	-	Data bus
94	P011,D09,AD09,TM8IC	D09	D/O	-	-	Hi-Z	-	Data bus
95	P012,D10,AD10,TM11IOA	D10	D/O	-	-	Hi-Z	-	Data bus
96	P013,D11,AD11,TM11IOB	D11	D/O	-	-	Hi-Z	-	Data bus
97	P014,D12,AD12,TM11IC	D12	D/O	-	-	Hi-Z	-	Data bus
98	P015,D13,AD13,TM12IOA	D13	D/O	-	-	Hi-Z	-	Data bus
99	P016,D14,AD14,TM12IOB	D14	D/O	-	-	Hi-Z	-	Data bus
100	P017,D15,AD15,TM12IC	D15	D/O	-	-	Hi-Z	-	Data bus

MN6627911AC
(IC201)

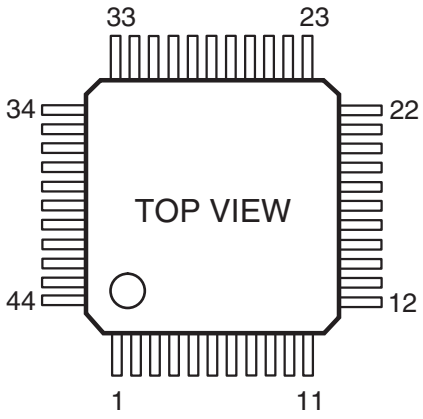


MN6627911AC Terminal Function

Pin No.	Pin Name	I/O	Function
1	DRVDD	I	Power supply for DRAM interface (Pin No.2 - 18, 80)
2	D0	I/O	Data I/O signal 0 for DRAM
3	D1	I/O	Data I/O signal 1 for DRAM
4	WE	O	Write enable signal for DRAM
5	RAS	O	RAS control signal for DRAM
6	D2	I/O	Data I/O signal 2 for DRAM
7	D3	I/O	Data I/O signal 3 for DRAM
8	CAS	O	CAS control signal 0 for DRAM
9	A10	O	Address signal 10 for DRAM
10	A8	O	Address signal 8 for DRAM
11	A7	O	Address signal 7 for DRAM
12	A6	O	Address signal 6 for DRAM
13	A5	O	Address signal 5 for DRAM
14	A4	O	Address signal 4 for DRAM
15	A9	O	Address signal 9 for DRAM
16	A0	O	Address signal 0 for DRAM
17	A1	O	Address signal 1 for DRAM
18	A2	O	Address signal 2 for DRAM
19	A3	O	Address signal 3 for DRAM
20	DVSS2	I	GND for digital
21	DVDD2	I	Power supply for digital
22	SPOUT	O	Spindle motor drive signal
23	TRVP	O	Traverse drive signal
24	TRVM	O	Not used
25	TRP	O	Tracking drive
26	GCNTL	O	Gain control signal for CD-RW
27	FOP	O	Focus drive
28	CHGICO	O	EQ select signal
29	IOVDD1	I	Power supply for IO
30	TBAL	O	Tracking balance adjust
31	FBAL	O	Focus balance adjust
32	FE	I	Focus error signal (Analog input)
33	TE	I	Tracking error signal (Analog input)
34	RFENV	I	RF envelope signal (Analog input)
35	OFT	I	Off track signal H : OFF TRACK
36	NRFDET	I	RF detect signal H : DETECT
37	BDO	I	Drop out signal H : DROP OUT
38	LDON	O	Laser ON signal H : ON
39	ARF	I	RF signal
40	IREF	I	Standard current input terminal
41	ADPVCC	I	Voltage for power supply monitor

Pin No.	Pin Name	I/O	Function
42	DSLF	O	Loop filter for DSL
43	RFSW	I	Loop filter for DSL
44	PLLF	O	Loop filter for PLL
45	PLLFO	O	Loop filter for PLL
46	AVDD2	I	Power supply for analog (DSL, PLL, AD)
47	AVSS2	I	GND for analog (DSL, PLL, AD)
48	OUTL	O	Not used
49	AVSS1	I	GND for analog (Audio output)
50	OUTR	O	Not used
51	AVDD1	I	Power supply for analog (Audio output)
52	DVSS3	I	GND for digital
53	DVDD3	I	Power supply for digital
54	TMOD2	I	Test terminal L : Normal
55	MON2	O	Serial monitor signal 2
56	BCLK	O	Bit clock for serial data
57	SRDATA	O	Serial data signal
58	LRCK	O	L, R discernment signal
59	IOVDD2	I	Power supply for IO
60	TX	O	Digital audio interface signal
61	MCLK	I	ucon command clock signal
62	MDATA	I	ucon command data signal
63	MLD	I	ucon command load signal L : LOAD
64	BLKCK	O	Sub code block clock signal (f=75Hz : Normal speed playback)
65	PWMSEL	I	PWM output mode select L : Direct H : 3 values
66	SMCK	O	Not used
67	SBCK	I	Not used
68	STAT	O	Status signal
69	NRST	I	Reset L : RESET
70	SPPOL	O	Not used
71	PMCK	O	Not used
72	DQSY	O	Pack signal for CD TEXT data
73	TXTD	O	CD TEXT data signal
74	TXTCK	O	Ext. clock signal input for CD TEXT resister
75	NTEST	I	Test terminal H : Normal
76	X2	O	Not used
77	X1	I	16.9344MHz input terminal
78	DVSS1	I	GND for digital
79	DVDD1	I	Power supply for digital
80	MON1	O	Serial monitor signal

TMP86CM47U (RC: IC102, 202)

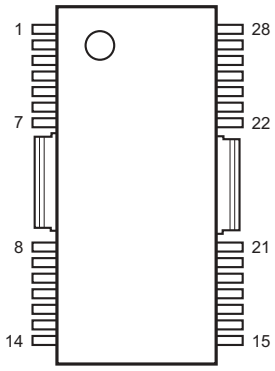


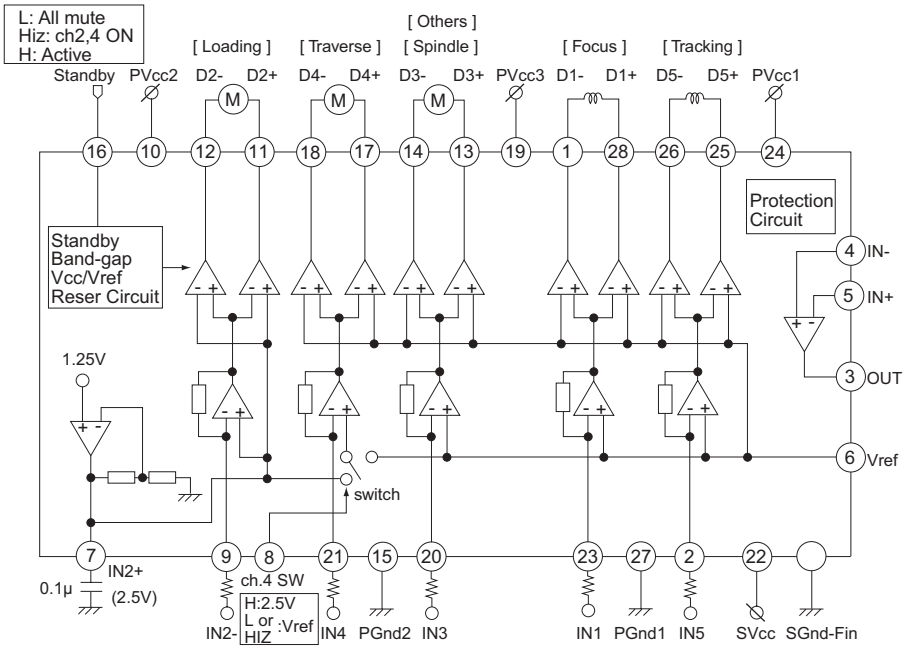
TMP86CM47U Terminal Function

Pin No.	Pin Name	Symbol	I/O	DET	Ext	Res	Ini	Function
1	VSS	VSS	-	-	-	-	-	GND (0V)
2	XIN	XIN	I	-	-	-	-	Oscillation input
3	XOUT	XOUT	O	-	-	-	-	Oscillation output
4	TEST	TEST	I	-	-	-	-	Fixed to L
5	VDD	VDD	-	-	-	-	-	Power (+5.0V)
6	P21	LCLK1	O	-	Pu	H	L	CD1:BU2090F-CLK
7	P22	LCLK2	O	-	Pu	H	L	CD2:BU2090F-CLK
8	/RST	/RST	I	-	-	-	-	ucon reset
9	P20	/FLRST	O	-	Pd	H	L	CD1/2:M66005FP-/RST
10	P00	NC	I	-	-	Hi-Z	-	
11	P01	NC	I	-	-	Hi-Z	-	
12	RXD	RXD	I	-	-	H		Data receive from main unit
13	TXD	TXD	O	-	-	H	H	Data send to main unit
14	P04	DATA	O	-	Pu	H	H	CD1/2:M66005FP-DATA & BU2090F-DATA
15	P05	NC	I	-	-	Hi-Z	-	
16	P06	FLCLK	O	-	Pu	H	H	CD1/2:M66005FP-CLK
17	P07	NC	I	-	-	Hi-Z	-	
18	P17	/FLCS2	O	-	Pu	H	H	CD2:M66005FP-/CS
19	P16	/FLCS1	O	-	Pu	H	H	CD1:M66005FP-/CS
20	P15	/KEYOUT5	O	-	Pu	H	H	Key scan signal 5
21	P14	/KEYOUT4	O	-	Pu	H	H	Key scan signal 4
22	P13	/KEYOUT3	O	-	Pu	H	H	Key scan signal 3
23	P12	/KEYOUT2	O	-	Pu	H	H	Key scan signal 2
24	P11	/KEYOUT1	O	-	Pu	H	H	Key scan signal 1
25	P10	/KEYOUT0	O	-	Pu	H	H	Key scan signal 0
26	AIN0	PIT1	A/I	-	-	-	-	CD1: Pitch input
27	AIN1	PITC1	A/I	-	-	-	-	CD1: Pitch center value signal
28	AIN2	PIT2	A/I	-	-	-	-	CD2: Pitch input
29	AIN3	PITC2	A/I	-	-	-	-	CD2: Pitch center value signal
30	P34	JOG10	I	-	Pu	-	H	CD1: JOG
31	P35	JOG11	I	-	Pu	-	H	CD1: JOG
32	P36	JOG20	I	-	Pu	-	H	CD2: JOG
33	P37	JOG21	I	-	Pu	-	H	CD2: JOG

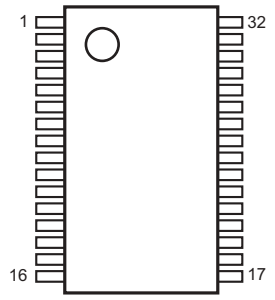
Pin No.	Pin Name	Symbol	I/O	DET	Ext	Res	Ini	Function
34	VAREF	5V	I	-	-	-	-	Power (+5.0V), Analog ref.V for A/D conversion
35	AVDD	5V	I	-	-	-	-	Power (+5.0V), for A/D conversion circuit only
36	AVSS	0V	I	-	-	-	-	GND (0V), Analog GND for A/D conversion
37	P40	/KEYIN0	I	-	Pu	-	H	CD1: Key scan input 0
38	P41	/KEYIN1	I	-	Pu	-	H	CD1: Key scan input 1
39	P42	/KEYIN2	I	-	Pu	-	H	CD1: Key scan input 2
40	P43	/KEYIN3	I	-	Pu	-	H	CD1: Key scan input 3
41	P44	/KEYIN4	I	-	Pu	-	H	CD2: Key scan input 0
42	P45	/KEYIN5	I	-	Pu	-	H	CD2: Key scan input 2
43	P46	/KEYIN6	I	-	Pu	-	H	CD2: Key scan input 3
44	P47	/KEYIN7	I	-	Pu	-	H	CD2: Key scan input 3

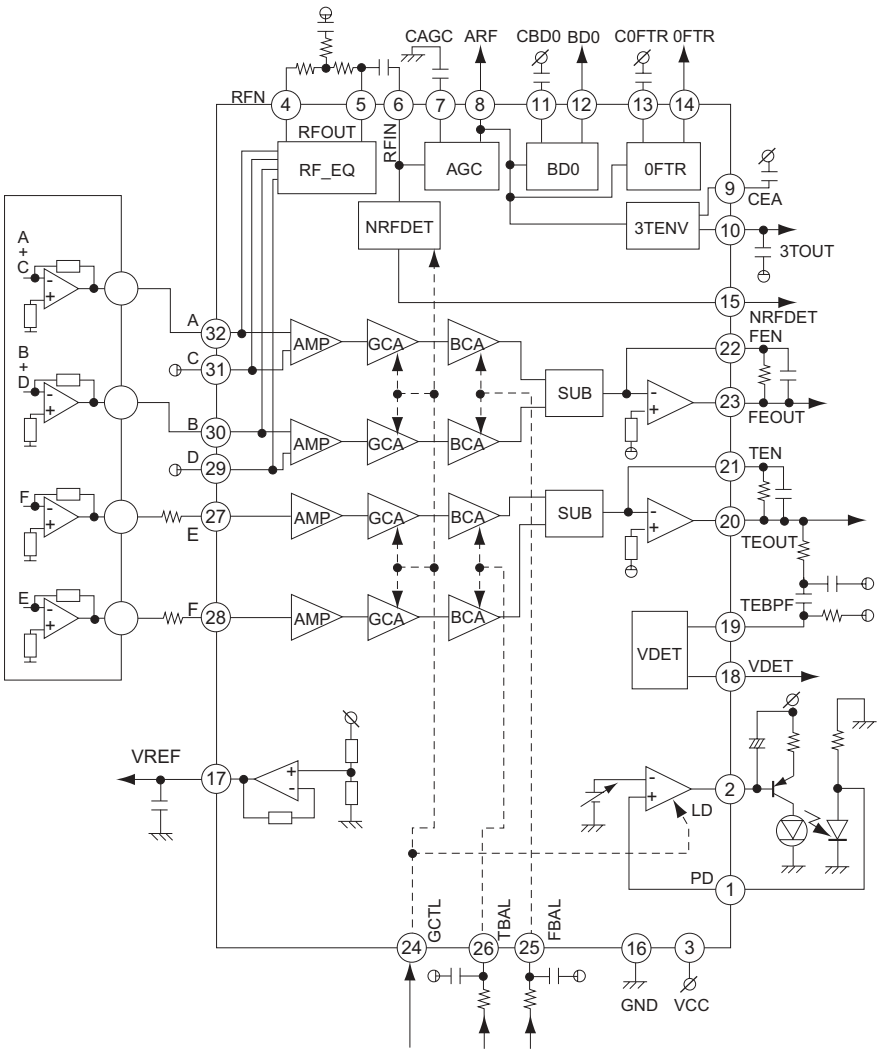
AN8785SB
(IC202)



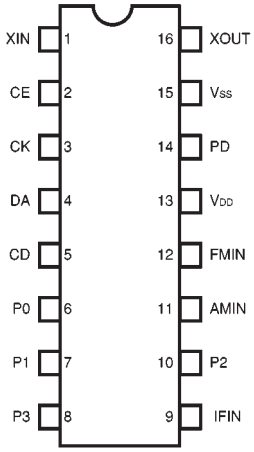


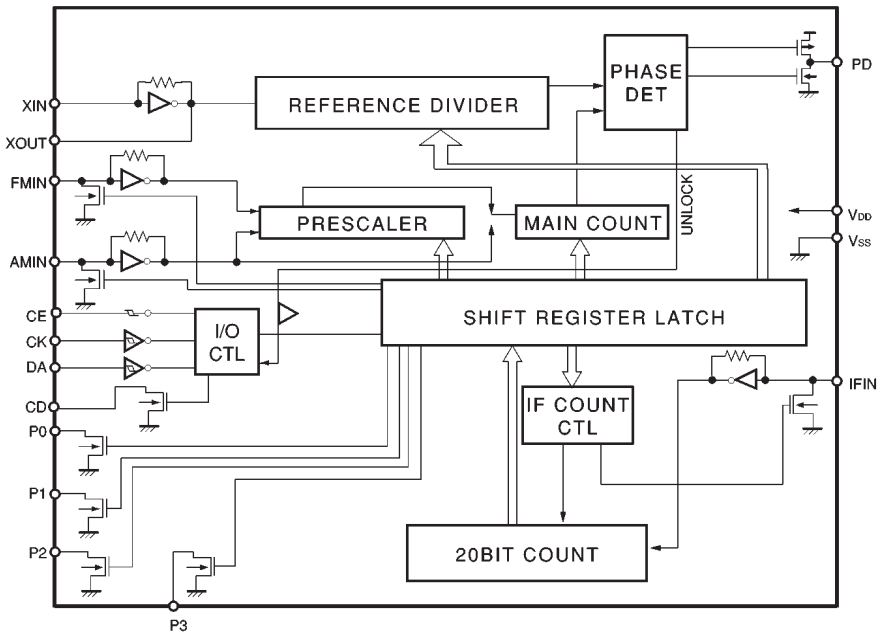
AN22002A
(IC203)



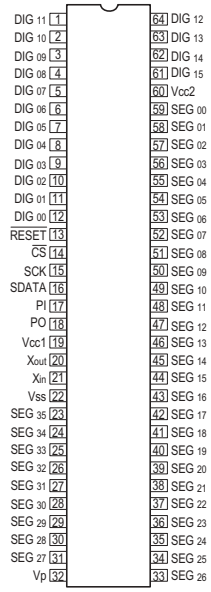


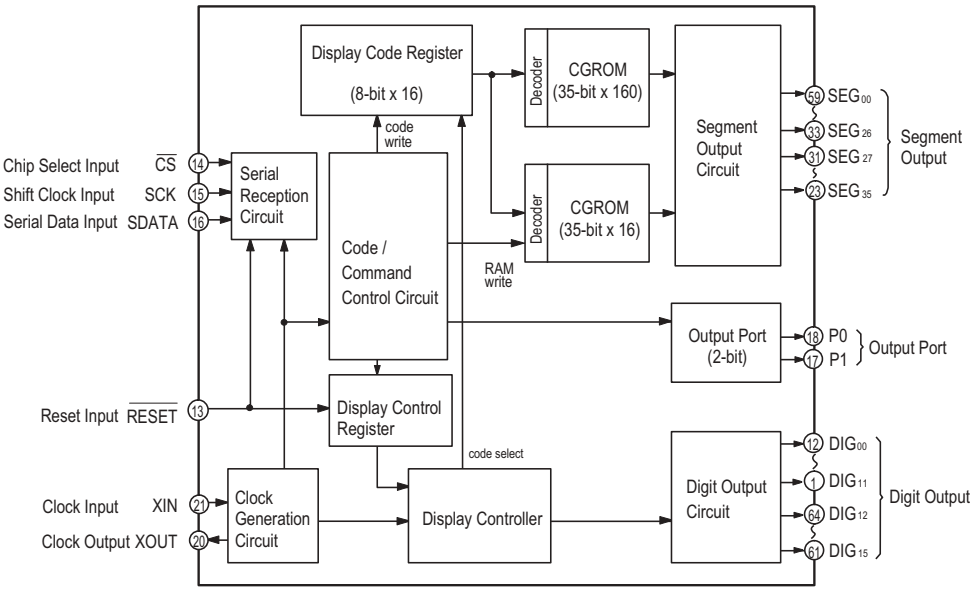
BU2618FV (IC113)





M66005FP (IC601)





M66005FP Terminal Function

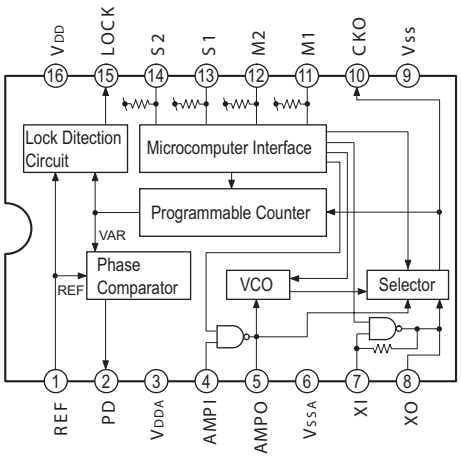
Symbol	Name	Function
$\overline{\text{RESET}}$	Reset Input	Initialzes internal state of M66005.
$\overline{\text{CS}}$	Chip Select Input	Able to communicate with MCU in "L" mode. Command from MCU will be disregareded in "H" mode.
SCK	Shift Clock Input	Shifts input data at rise from "L" to "H".
SDATA	Serial Data Input	Inputs character code or command data needed to display from MSB.
XIN	Clock Input	Sets oscillation frquency by connecting external resistor and capacitor (maximum oscillation frequency fosc (max)=1MHz). Also feasible to apply external clock. In this case, inject external clock to Xin terminal and open Xout terminal.
XOUT	Clock Output	
DIG 00~ DIG 15	Digit Output	Connect to digit terminal of VFD. DIG00~DIG15 correspond to the 1st figure to 16th figure respectively.
SEG 00~ SEG 35	Segment Output	Connect to segment terminal of VFD. For corresponding SEG00~SEG35 to segment terminal of VFD, refer to the figure right.
P0, P1		Output port (static operation).
VCC1		Positive power supply terminal for internal logic.
VCC2		Positive power supply terminal for high tension output port.
Vss		GND terminal.
Vp		Negative power supply terminal for VFD drive.

(Forwarding connection of segment output terminal.)

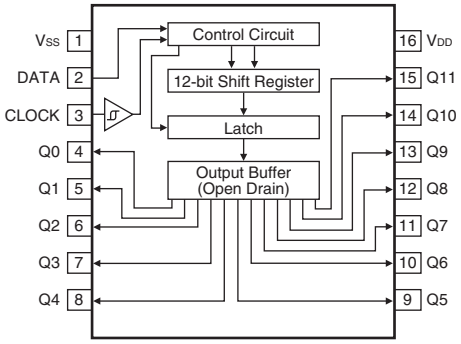
☐ in the right figure indicates 1 dot of segment, the figure in ☐ shows the segment output terminal number (00~35) to be connected.

00	01	02	03	04
05	06	07	08	09
10	11	12	13	14
15	16	17	18	19
20	21	22	23	24
25	26	27	28	29
30	31	32	33	34
				35

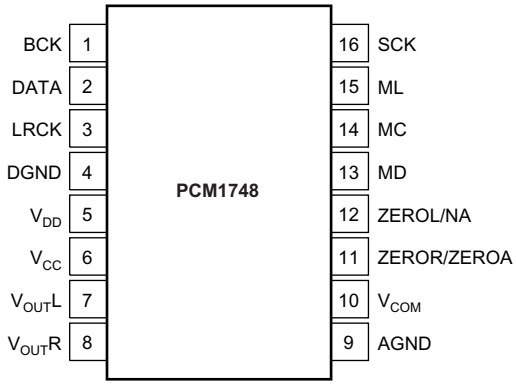
TC9246F (IC114)

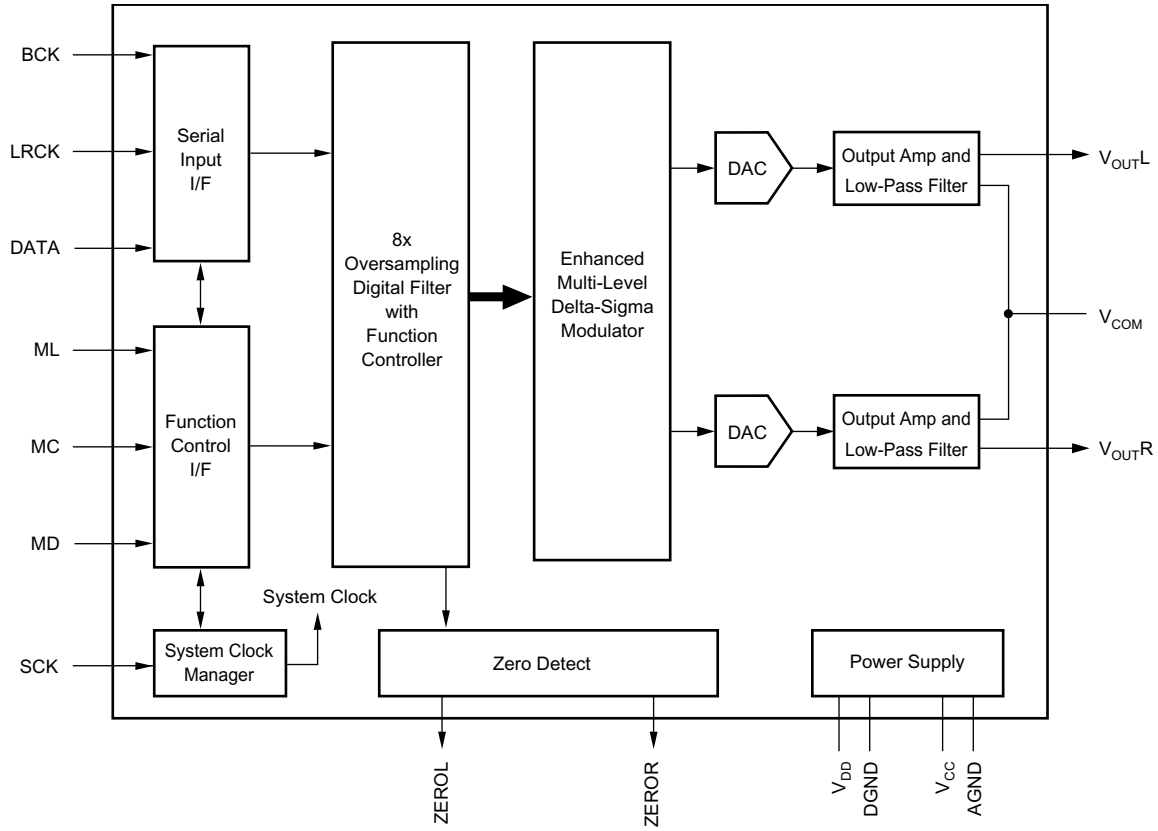


BU2090F (IC602)



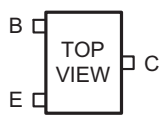
PCM1748 (IC206)





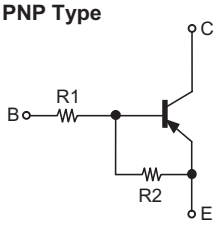
● TRANSISTORS

DTA114EK
DTC114EK
DTC114YK
DTC143EK



DTA114EK

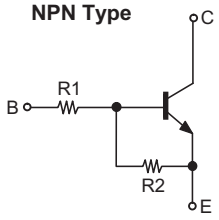
PNP Type



	R1	R2
DTA114EK	10kohm	10kohm

DTC114EK
DTC114YK
DTC143EK

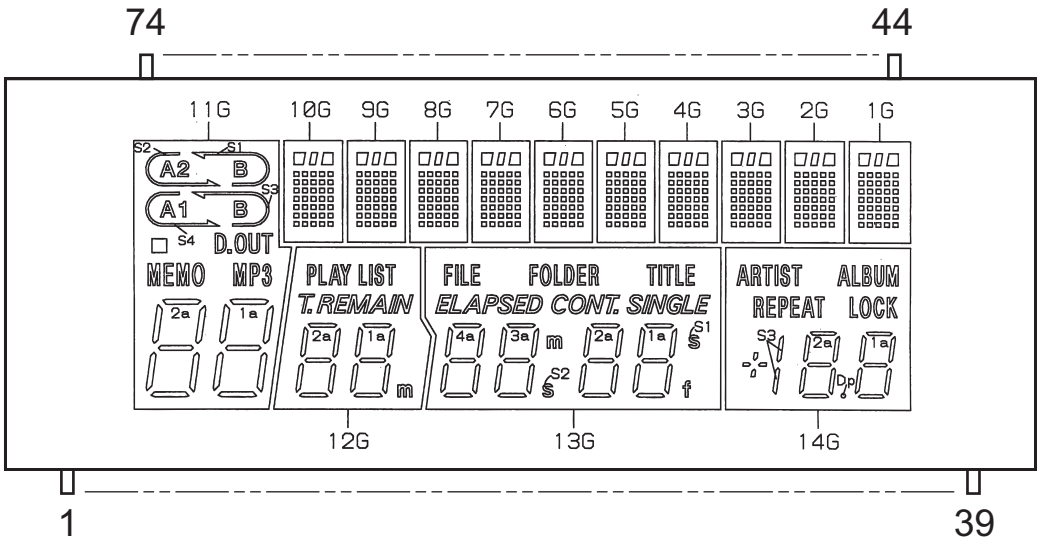
NPN Type



	R1	R2
DTC114EK	10kohm	10kohm
DTC114YK	10kohm	47kohm
DTC143EK	4.7kohm	4.7kohm

FL DISPLAY

14-MT-35GN (FL601)



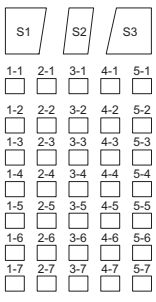
Pin Connection

Pin No.	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40
Connection	NP	NP	NP	NP	IC	NC	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NC	NC	NC	NC	NC	NC	NC	NC	P36	P35	P34	P33	P32	P31	P30	P29	P28	NP	NP	NP	NP

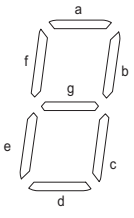
Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Connection	F1	F1	NP	NP	13G	14G	P37	P38	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	220	221	122	123	124	125	126	127	NP	NP	F2	F2

NOTE: 1) F1, F2 ····· Filament 2) NP ····· No Pin 3) DL ····· Datum Line 4) 1G~14G ····· Grid
5) IC ····· Internal Connection 6) NC ····· No Connection

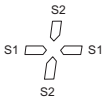
Segment Designation



(10G~1G)



(11G~14G)



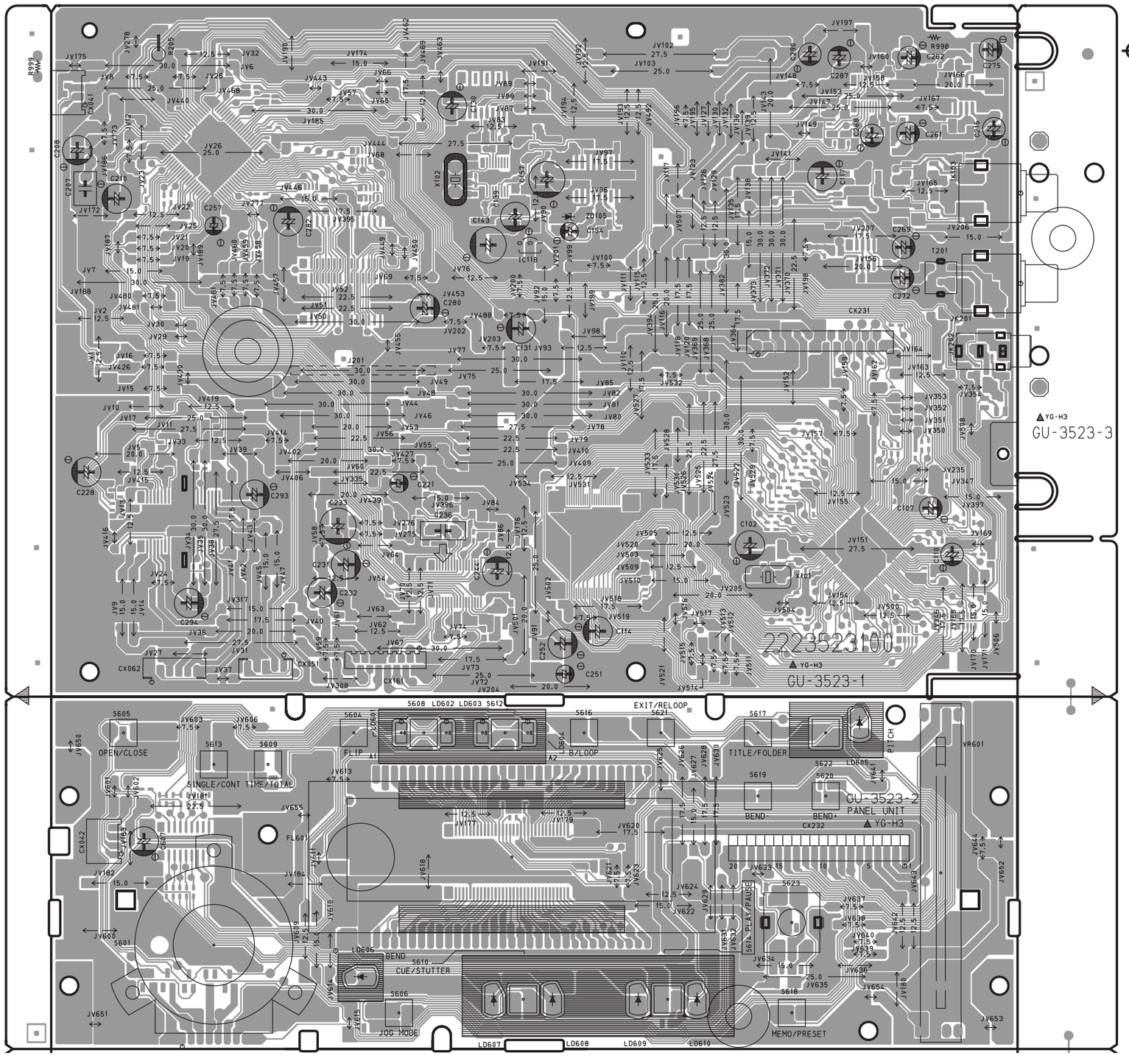
(14G)

Anode Connection

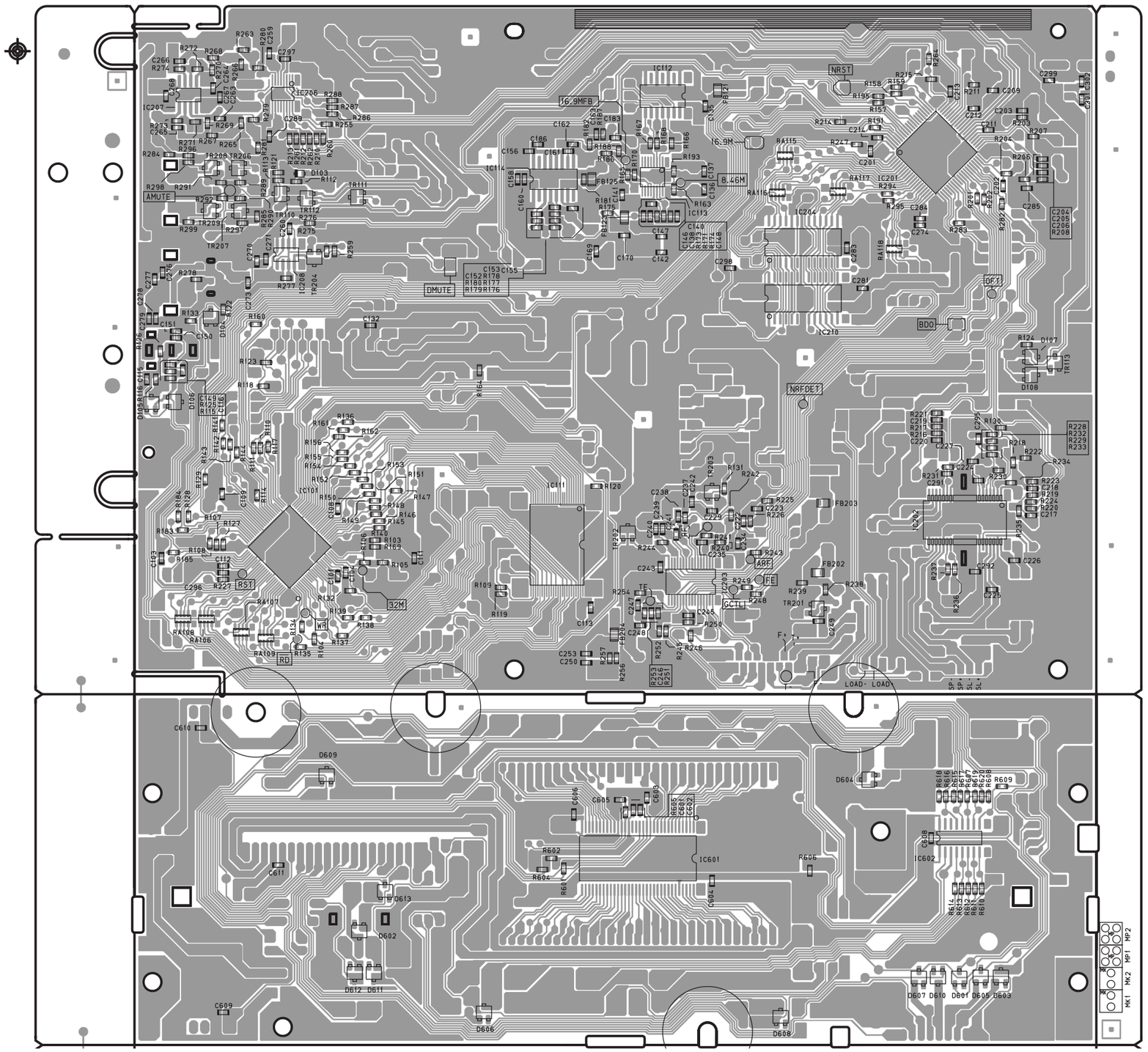
	14G	13G	12G	11G	10G~1G
P1	S1	1d	1d	1d	1-1
P2	S2	1e	1e	1e	2-1
P3	S3	1c	1c	1c	3-1
P4	1d	1g	1g	1g	4-1
P5	1e	1f	1f	1f	5-1
P6	1c	1b	1b	1b	1-2
P7	1g	1a	1a	1a	2-2
P8	1f	2d	2d	2d	3-2
P9	1b	2e	2e	2e	4-2
P10	1a	2c	2c	2c	5-2
P11	Dp	2g	2g	2g	1-3
P12	2d	2f	2f	2f	2-3
P13	2e	2b	2b	2b	3-3
P14	2c	2a	2a	2a	4-3
P15	2g	m	m	MEMO	5-3
P16	2f	S2	PLAY LIST	MP3	1-4
P17	2b	3d	T.	□	2-4
P18	2a	3e	REMAIN	D.OUT	3-4
P19	ARTIST	3c	–	A1	4-4
P20	ALBUM	3g	–	S4	5-4
P21	REPEAT	3f	–	B	1-5
P22	LOCK	3b	–	S3	2-5
P23	–	3a	–	A2	3-5
P24	–	4d	–	S2	4-5
P25	–	4e	–	B	5-5
P26	–	4c	–	S1	1-6
P27	–	4g	–	–	2-6
P28	–	4f	–	–	3-6
P29	–	4b	–	–	4-6
P30	–	4a	–	–	5-6
P31	–	S1	–	–	1-7
P32	–	f	–	–	2-7
P33	–	FILE	–	–	3-7
P34	–	FOLDER	–	–	4-7
P35	–	TITLE	–	–	5-7
P36	–	ELAPSED	–	–	S1
P37	–	CONT.	–	–	S2
P38	–	SINGLE	–	–	S3

PRINTED WIRING BOARDS

GU-3523 DRIVE P.W.B. UNIT

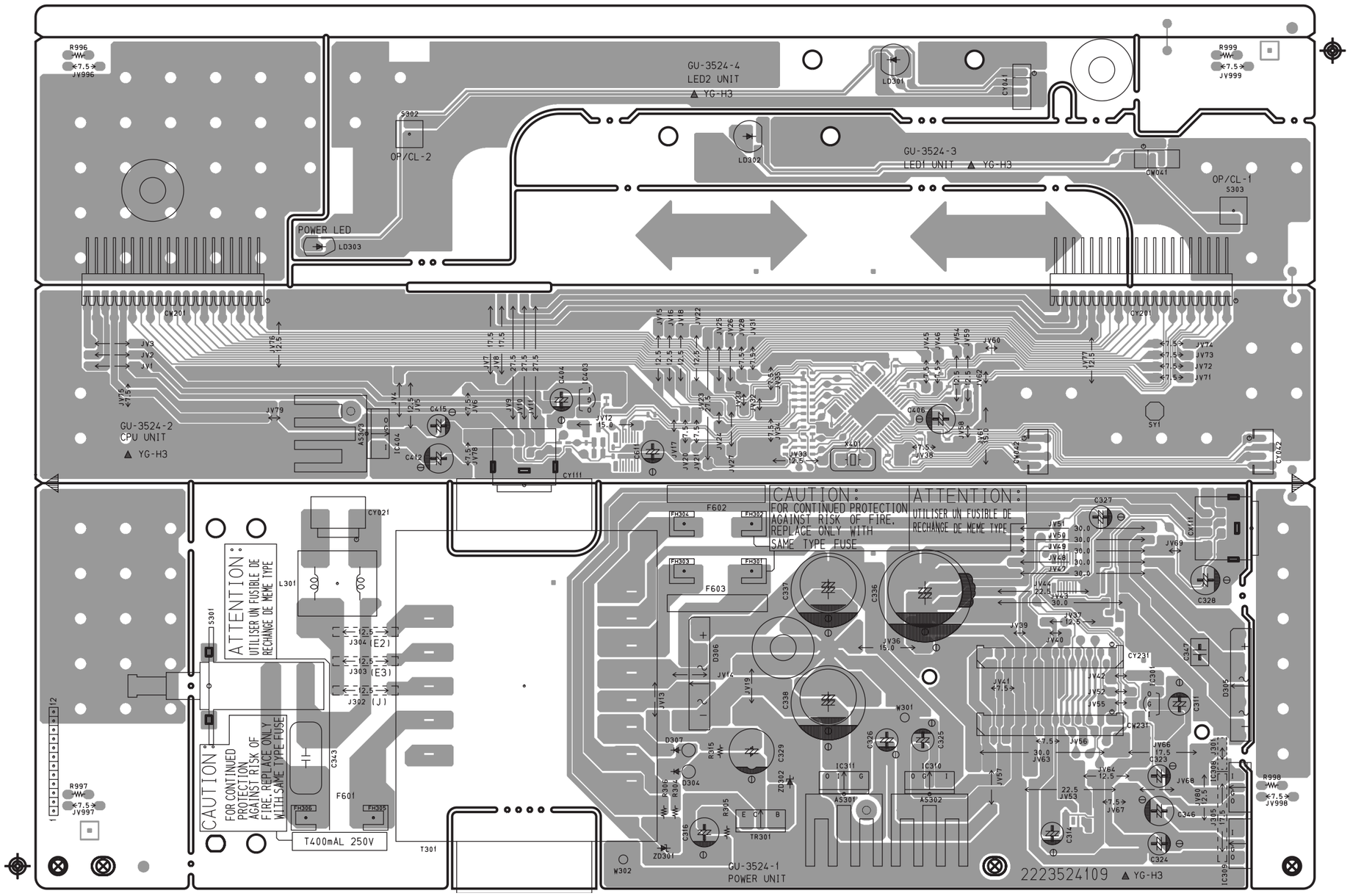


COMPONENT SIDE

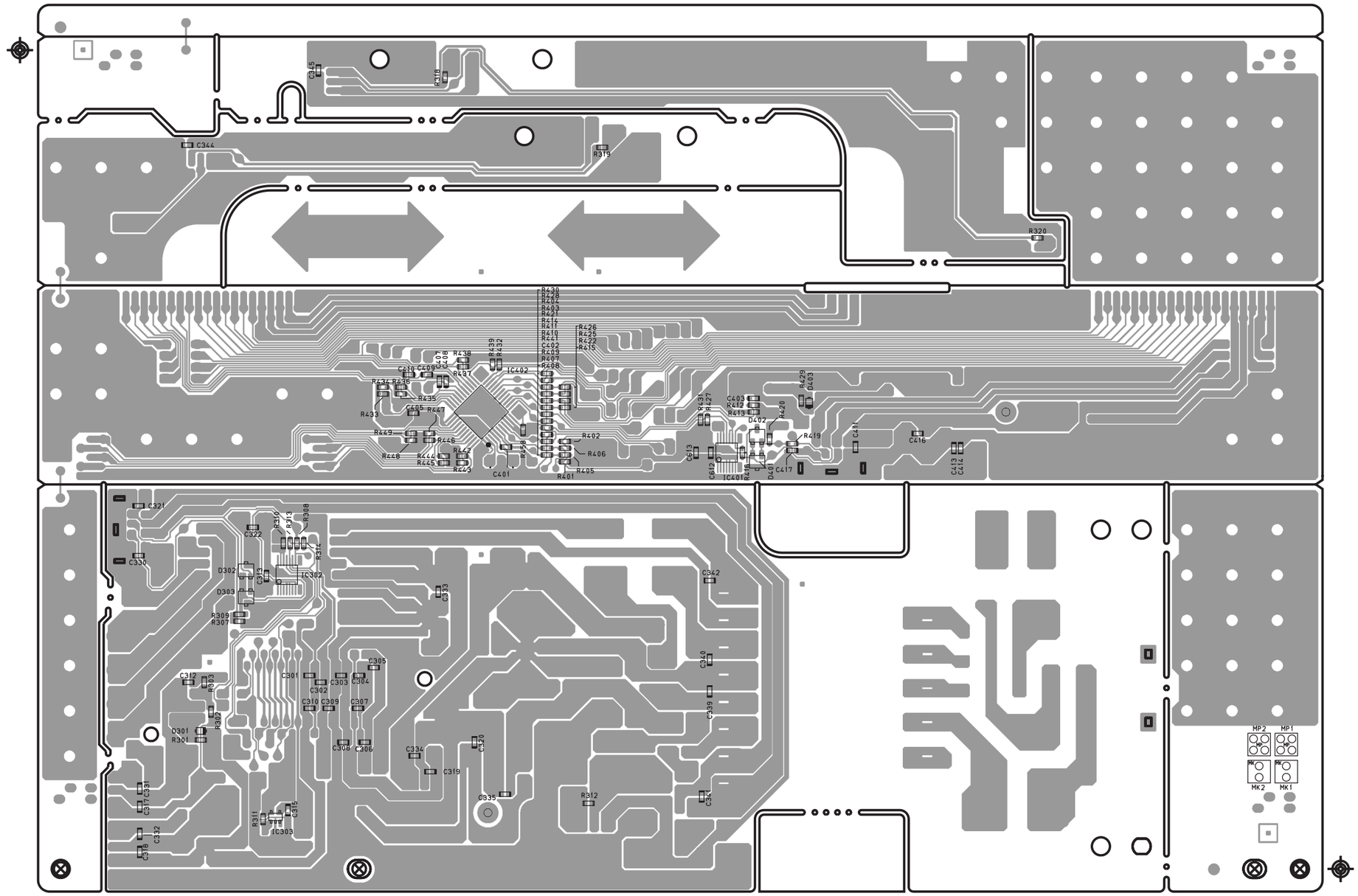

NRST
AMUTE
DMUTE
8.46M
16.9M
16.9MFB
32M
RST
WR
RD
BDO
NRFDET
LOAD- LOAD+
IC112
IC114
IC113
IC204
IC210
IC101
IC111
IC601
IC602
IC201
IC207
IC206
IC208
TR204
TR206
TR207
TR209
TR112
TR140
TR111
TR115
TR201
TR202
TR203
D103
D104
D105
D106
D107
D108
D602
D603
D604
D605
D606
D607
D608
D609
D610
D611
D612
D613
MK1
MK2
MP1
MP2

FOIL SIDE

POWER SUPPLY UNIT



COMPONENT SIDE


C345
R318
C344
R319
R320
R430
R429
R404
R403
R427
R416
R411
R410
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R425
R423
R415
C402
R409
R407
R408
C407
C408
R438
R439
R432
C410
C409
R497
IC402
R434
R436
R435
C405
R447
R433
R449
R446
R448
R444
R445
R442
R443
C401
R402
R406
R405
R401
C431
R431
R427
C403
R412
R413
R420
D402
R429
D403
R419
C441
C416
C413
C414
C417
D401
R418
IC401
C613
C612
C321
C322
R310
R313
R308
R312
C330
D302
C315
IC302
D303
C333
R309
R307
C342
C340
C312
R303
C301
C305
C303
C304
C302
C310
C309
C307
C339
R306
R302
D301
R301
C308
C306
C334
C320
C319
C335
R312
C314
C317
C331
R311
C315
IC303
C332
C318
MP2
MP1
MK
MK
MK2
MK1

FOIL SIDE

NOTE FOR PARTS LIST

- Part indicated with the mark "⊙" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "I" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.

I Not including Carbon Film ±5%, 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

WARNING:

Parts marked with this symbol ⚠ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

● Resistors

Ex.: RN 14K 2E 182 G FR

Type	Shape and performance	Power	Resistance	Allowable error	Others
RD : Carbon RC : Composition RS : Metal oxide film RW : Winding RN : Metal film RK : Metal mixture		2B : 1/8W 2E : 1/4W 2H : 1/2W 3A : 1W 3D : 2W 3F : 3W 3H : 5W		F : ±1% G : ±2% J : ±5% K : ±10% M : ±20%	P : Pulse-resistant type NL : Low noise type NB : Non-burning type FR : Fuse-resistor F : Lead wire forming

⁎ Resistance

1 8 2 ⇒ 1800 ohm = 1.8 kohm
Indicates number of zeros after effective number.
2-digit effective number.

• Units: ohm

1 R 2 ⇒ 1.2 ohm
1-digit effective number.
2-digit effective number, decimal point indicated by R.

• Units: ohm

● Capacitors

Ex.: CE 04W 1H 2R2 M BP

Type	Shape and performance	Dielectric strength	Capacity	Allowable error	Others
CE : Aluminum foil electrolytic CA : Aluminum solid electrolytic CS : Tantalum electrolytic CQ : Film CK : Ceramic CC : Ceramic CP : Oil CM : Mica CF : Metallized CH : Metallized		0J : 6.3V 1A : 10V 1C : 16V 1E : 25V 1V : 35V 1H : 50V 2A : 100V 2B : 125V 2C : 160V 2D : 200V 2E : 250V 2H : 500V 2J : 630V		F : ±1% G : ±2% J : ±5% K : ±10% M : ±20% Z : +80% −20% P : +100% −0% C : ±0.25pF D : ±0.5pF = : Others	HS : High stability type BP : Non-polar type HR : Ripple-resistant type DL : For change and discharge HF : For assuring high requency U : UL part C : CSA part W : UL-CSA type F : Lead wire forming

⁎ Capacity (electrolyte only)

2 2 2 ⇒ 2200μF
Indicates number of zeros after effective number.
2-digit effective number.

• Units: μF.

2 R 2 ⇒ 2.2μF
1-digit effective number.
2-digit effective number, decimal point indicated by R.

• Units: μF.

⁎ Capacity (except electrolyte)

2 2 2 ⇒ 2200pF=0.0022μF
(More than 2) — Indicates number of zeros after effective number.
2-digit effective number.

• Units: pF.

2 2 1 ⇒ 220pF
(0 or 1) — Indicates number of zeros after effective number.
2-digit effective number.

• Units: pF.

• When the dielectric strength is indicated in AC, "AC" is included after the dieelectric strength value.

PARTS LIST OF P.W.B. UNIT ASS'Y

Note: The symbols in the column "Remarks" indicate the following destinations.
E3: U.S.A. model, Csnada model E2K : Koria model
E2: Europe model

GU-3523 DRIVE P.W.B. UNIT ASS'Y

	Ref. No.	Part No.	Part Name	Remarks	New
SEMICONDUCTORS GROUP					
	IC101	262 3171 000	MN102H60KDA		
	IC111	GEN6411	D4000 SYSTEM ROM	8M FLASH	
	IC112	262 2376 903	TC74HCT7007AF(TP1)		
	IC113	262 2651 903	BU2618FV(E2)		
	IC114	262 1883 905	TC9246F-TP1		
	IC118	263 0432 907	NJM78L05AT		
	IC201	262 3158 007	MN6627911AC		
	IC202	262 3159 909	AN8785SB		
	IC203	262 3160 901	AN22002A		
	IC204	262 2881 003	16M DRAM(3.3V)		
	IC206	262 3166 905	PCM1748E(TAPE)		
	IC207	263 0615 902	BA15218F-DXE2		
	IC208	262 1953 903	TC7WU04F		
	IC210	262 2881 003	16M DRAM(3.3V)		
	IC601	262 2951 904	M66005FP		
	IC602	262 2745 903	BU2090F(E2)		
	TR110	269 0082 902	DTC114EKT96		
	TR112	269 0083 901	DTA114EKT96		
	TR113	269 0048 904	DTC143EK-T96		
	TR201	272 0125 904	2SB709A		
	TR202	269 0144 905	DTC114YK-T146		
	TR204	273 0460 905	KTC2875B-RTK		
	TR206	273 0460 905	KTC2875B-RTK		
	D103	276 0717 903	1SS355 TE-17		
	D104	276 0438 949	MA151WK (TAPE)		
	D106	276 0559 909	DAP202KT146		
	D107	276 0438 949	MA151WK (TAPE)		
	D108	276 0559 909	DAP202KT146		
	D601	276 0559 909	DAP202KT146		
	ZD105	276 0450 901	HZS2B-1TD		
	LD601	393 9606 909	SEL6927A(TP5)		
	LD605	393 9543 910	SLR-325MC (GRN) TAPE		
	LD607	393 9543 907	SLR-325VC (RED) TAPE		
	LD609	393 9543 910	SLR-325MC (GRN) TAPE		
RESISTORS GROUP					
	R103	247 2009 983	RM73B--103JT		
	R104	247 2003 989	RM73B--330JT		
	R105	247 2018 903	RM73B--0R0KT		
	R107	247 2011 942	RM73B--473JT		
	R109	247 2009 983	RM73B--103JT		
	R110	247 2003 989	RM73B--330JT		
	R112	247 2005 903	RM73B--101JT		
	R113	247 2009 912	RM73B--512JT		
	R114	247 2009 983	RM73B--103JT		

	Ref. No.	Part No.	Part Name	Remarks	New
	R117	247 2003 989	RM73B--330JT		
	R118	247 2006 960	RM73B--471JT		
	R119	247 2009 983	RM73B--103JT		
	R121	247 2009 912	RM73B--512JT		
	R122	247 2008 968	RM73B--332JT		
	R123	247 2008 913	RM73B--202JT		
	R124	247 2007 943	RM73B--102JT		
	R127	247 2011 942	RM73B--473JT		
	R128	247 2018 903	RM73B--0R0KT		
	R130	247 2009 925	RM73B--562JT		
	R131	247 2013 940	RM73B--334JT		
	R132	247 2011 942	RM73B--473JT		
	R134	247 2003 989	RM73B--330JT		
	R157	247 2005 903	RM73B--101JT		
	R161	247 2003 989	RM73B--330JT		
	R163	247 2018 903	RM73B--0R0KT		
	R164	247 2009 983	RM73B--103JT		
	R166	247 2005 903	RM73B--101JT		
	R169	247 2018 903	RM73B--0R0KT		
	R171	247 2009 925	RM73B--562JT		
	R173	247 2012 925	RM73B--104JT		
	R175	247 2012 912	RM73B--913JT		
	R176	247 2012 983	RM73B--184JT		
	R177	247 2005 903	RM73B--101JT		
	R178	247 2013 937	RM73B--304JT		
	R179	247 2008 939	RM73B--242JT		
	R180	247 2009 912	RM73B--512JT		
	R182	247 2007 943	RM73B--102JT		
	R183	247 2005 903	RM73B--101JT		
	R186	247 2007 943	RM73B--102JT		
	R188	247 2004 920	RM73B--470JT		
	R191	247 2014 965	RM73B--105JT		
	R193	247 2014 965	RM73B--105JT		
	R195	247 2005 903	RM73B--101JT		
	R201	247 2008 968	RM73B--332JT		
	R203	247 2010 972	RM73B--243JT		
	R205	244 2043 937	RS14B3A100JNBST(S)		
	R206	247 2010 927	RM73B--153JT		
	R207	247 2006 986	RM73B--561JT		
	R208	247 2010 927	RM73B--153JT		
	R210	247 2007 943	RM73B--102JT		
	R211	247 2010 985	RM73B--273JT		
	R212	247 2007 943	RM73B--102JT		
	R214	247 2010 985	RM73B--273JT		
	R215	247 2011 900	RM73B--333JT		
	R216	247 2010 927	RM73B--153JT		
	R217	247 2010 969	RM73B--223JT		
	R218	247 2011 926	RM73B--393JT		
	R219	247 2010 927	RM73B--153JT		
	R220	247 2009 925	RM73B--562JT		
	R222	247 2007 943	RM73B--102JT		
	R223	247 2009 925	RM73B--562JT		
	R224	247 2018 903	RM73B--0R0KT		
	R225	247 2012 925	RM73B--104JT		
	R227	247 2009 983	RM73B--103JT		
	R229	247 2012 925	RM73B--104JT		
	R231	247 2009 983	RM73B--103JT		
	R232	247 2012 925	RM73B--104JT		
	R234	247 2008 984	RM73B--392JT		
	R236	247 2009 983	RM73B--103JT		
	R238	247 2001 981	RM73B--4R7KT		

	Ref. No.	Part No.	Part Name	Remarks	New
	R239	247 2011 926	RM73B--393JT		
	R240	247 2008 955	RM73B--302JT		
	R241	247 2007 969	RM73B--122JT		
	R242	247 2006 986	RM73B--561JT		
	R243	247 2018 903	RM73B--0R0KT		
	R244	247 2014 949	RM73B--824JT		
	R245	247 2009 967	RM73B--822JT		
	R247	247 2003 989	RM73B--330JT		
	R248	247 2018 903	RM73B--0R0KT		
	R249	247 2009 941	RM73B--682JT		
	R250	247 2010 956	RM73B--203JT		
	R251	247 2011 997	RM73B--753JT		
	R252	247 2018 903	RM73B--0R0KT		
	R254	247 2018 903	RM73B--0R0KT		
	R255	247 2005 903	RM73B--101JT		
	R256	247 2004 991	RM73B--910JT		
	R259	247 2014 965	RM73B--105JT		
	R264	247 2003 947	RM73B--220JT		
	R265	247 2011 942	RM73B--473JT		
	R267	247 2009 983	RM73B--103JT		
	R275	247 2010 956	RM73B--203JT		
	R276	247 2007 943	RM73B--102JT		
	R277	247 2014 965	RM73B--105JT		
	R278	247 2004 975	RM73B--750JT		
	R279	247 2018 903	RM73B--0R0KT		
	R282	247 2009 925	RM73B--562JT		
	R283	247 2010 901	RM73B--123JT		
	R284	247 2012 925	RM73B--104JT		
	R286	247 2007 943	RM73B--102JT		
	R289	247 2009 983	RM73B--103JT		
	R294	247 2003 989	RM73B--330JT		
	R296	247 2005 945	RM73B--151JT		
	R601	247 2018 903	RM73B--0R0KT		
	R605	247 2009 983	RM73B--103JT		
	R607	247 2006 902	RM73B--331JT (1608)		
	R609	247 2005 987	RM73B--221JT		
	R611	247 2006 902	RM73B--331JT (1608)		
	R613	247 2005 987	RM73B--221JT		
	R615	247 2006 902	RM73B--331JT (1608)		
	R617	247 2007 972	RM73B--132JT		
	RA106	247 9002 909	MNR14=330JE0AB		
	RA115	247 9002 909	MNR14=330JE0AB		
	VR601	211 0908 003	SLIDE VOLUME		
CAPACITORS GROUP					
	C101	257 0512 903	CK73F1E104ZT		
	C102	254 4300 963	CE04W0J101MT(SRE)		
	C103	257 0511 904	CK73F1H103ZT		
	C104	257 0512 903	CK73F1E104ZT		
	C107	254 4533 921	CE04W0J101MT SMG/RE3		
	C108	257 0512 903	CK73F1E104ZT		
	C110	254 4533 921	CE04W0J101MT SMG/RE3		
	C111	257 0512 903	CK73F1E104ZT		
	C112	257 0511 904	CK73F1H103ZT		
	C113	257 0512 903	CK73F1E104ZT		
	C114	254 4536 915	CE04W1A470MT SMG/RE3		
	C115	257 0512 903	CK73F1E104ZT		

	Ref. No.	Part No.	Part Name	Remarks	New
	C117	254 4538 955	CE04W1C221MT SMG/RE3		
	C130	254 4302 958	CE04W1A470MT(SRE)		
	C131	254 4299 964	CE04W1C470MT(SRE)		
	C132	257 0512 903	CK73F1E104ZT		
	C135	257 0512 903	CK73F1E104ZT		
	C136	257 0503 967	CC73CH1H150JT		
	C138	257 0511 904	CK73F1H103ZT		
	C139	254 4300 963	CE04W0J101MT(SRE)		
	C140	257 0511 904	CK73F1H103ZT		
	C141	257 0512 903	CK73F1E104ZT		
	C143	254 4300 989	CE04W0J331MT(SRM)		
	C146	257 0512 903	CK73F1E104ZT		
	C147	257 0511 904	CK73F1H103ZT		
	C148	257 0507 992	CC73CH1H391JT		
	C149	257 0508 917	CC73CH1H471JT		
	C152	257 0506 951	CC73CH1H101JT		
	C154	254 4305 955	CE04W1HR68MT(SRE)		
	C156	257 0512 903	CK73F1E104ZT		
	C157	254 4300 989	CE04W0J331MT(SRM)		
	C158	257 0512 903	CK73F1E104ZT		
	C160	257 0511 904	CK73F1H103ZT		
	C161	257 0512 903	CK73F1E104ZT		
	C169	257 0512 903	CK73F1E104ZT		
	C183	257 0511 904	CK73F1H103ZT		
	C186	257 0512 903	CK73F1E104ZT		
	C201	257 0512 903	CK73F1E104ZT		
	C202	257 0509 929	CK73B1H102KT		
	C203	257 0512 903	CK73F1E104ZT		
	C204	257 0509 929	CK73B1H102KT		
	C205	257 0516 909	CK73B1E223KT		
	C206	257 0512 903	CK73F1E104ZT		
	C207	256 1058 984	CF93A1H124JT (JL)		
	C208	254 4302 958	CE04W1A470MT(SRE)		
	C209	257 0512 903	CK73F1E104ZT		
	C210	254 4300 963	CE04W0J101MT(SRE)		
	C211	257 0512 903	CK73F1E104ZT		
	C215	254 4538 900	CE04W1C100MT SMG/RE3		
	C217	257 0509 990	CK73B1H222KT		
	C221	254 4302 916	CE04W1A100MT(SRE)		
	C222	257 0516 909	CK73B1E223KT		
	C224	257 0512 903	CK73F1E104ZT		
	C227	257 0512 903	CK73F1E104ZT		
	C228	254 4302 958	CE04W1A470MT(SRE)		
	C229	257 0506 935	CC73CH1H820JT		
	C231	254 4302 958	CE04W1A470MT(SRE)		
	C233	254 4300 989	CE04W0J331MT(SRM)		
	C234	257 0512 903	CK73F1E104ZT		
	C236	256 1059 912	CF93A1H224JT (JL)		
	C237	257 0512 903	CK73F1E104ZT		
	C238	257 0501 914	CK73B1H123KT		
	C239	257 0510 947	CK73B1H562KT		
	C240	257 0516 909	CK73B1E223KT		
	C241	257 0501 927	CK73B1H153KT		
	C242	257 0506 948	CC73CH1H910JT		
	C243	257 0512 903	CK73F1E104ZT		
	C244	254 4300 963	CE04W0J101MT(SRE)		
	C245	257 0507 950	CC73CH1H271JT		
	C246	257 0506 993	CC73CH1H151JT		
	C250	257 0512 903	CK73F1E104ZT		
	C251	254 4305 997	CE04W1H3R3MT(SRE)		
	C252	254 4300 963	CE04W0J101MT(SRE)		

	Ref. No.	Part No.	Part Name	Remarks	New
	C253	257 0512 903	CK73F1E104ZT		
	C257	254 4302 916	CE04W1A100MT(SRE)		
	C259	257 0512 903	CK73F1E104ZT		
	C260	257 0509 929	CK73B1H102KT		
	C261	254 4524 956	CE04W1H2R2MT SMG/RE3		
	C263	257 0507 976	CC73CH1H331JT		
	C267	257 0512 903	CK73F1E104ZT		
	C269	254 4536 928	CE04W1A101MT SMG/RE3		
	C270	257 0501 901	CK73B1H103KT (1608)		
	C271	257 0512 903	CK73F1E104ZT		
	C272	254 4538 926	CE04W1C330MT SMG/RE3		
	C273	257 0501 901	CK73B1H103KT (1608)		
	C274	257 0512 903	CK73F1E104ZT		
	C275	254 4538 900	CE04W1C100MT SMG/RE3		
	C276	257 0501 901	CK73B1H103KT (1608)		
	C277	257 0512 903	CK73F1E104ZT		
	C279	257 0512 903	CK73F1E104ZT		
	C280	254 4300 963	CE04W0J101MT(SRE)		
	C281	257 0513 902	CK73F1A105ZT		
	C282	254 4300 963	CE04W0J101MT(SRE)		
	C283	257 0513 902	CK73F1A105ZT		
	C284	257 0512 903	CK73F1E104ZT		
	C287	254 4538 900	CE04W1C100MT SMG/RE3		
	C289	257 0512 903	CK73F1E104ZT		
	C290	254 4538 900	CE04W1C100MT SMG/RE3		
	C291	257 0512 903	CK73F1E104ZT		
	C293	254 4299 964	CE04W1C470MT(SRE)		
	C294	254 4193 947	CE04W1C101MT (SRA)		
	C295	257 0512 903	CK73F1E104ZT		
	C297	257 0511 904	CK73F1H103ZT		
	C601	257 0512 903	CK73F1E104ZT		
	C603	257 0509 929	CK73B1H102KT		
	C604	257 0512 903	CK73F1E104ZT		
	C605	257 0506 951	CC73CH1H101JT		
	C606	257 0511 920	CK73F1H473ZT		
	C607	254 4302 958	CE04W1A470MT(SRE)		
	C608	257 0512 903	CK73F1E104ZT		
	C611	257 0512 903	CK73F1E104ZT		
OTHER PARTS GROUP					
	CX41	205 0355 046	4P KR CON BASE(L)		
	CX51	205 0343 058	5P CONN.BASE(KR-PH)		
	CX62	205 0343 061	6P CONN.BASE(KR-PH)		
	CX161	205 0892 033	16P FFC BASE (P=1)		
	CX231	205 0880 003	23P FFC CON.BASE		
	CX232	205 0849 044	20P CON BASE(BTMK-S)		
	FB121	235 0106 908	CHIP EMIFIL (21A05)		
	FB123	235 0106 908	CHIP EMIFIL (21A05)		
	FB125	235 0106 908	CHIP EMIFIL (21A05)		
	FB202	235 0106 908	CHIP EMIFIL (21A05)		
	FL601	393 8070 002	FLT (14-MT-35GN)		*
	JK103	204 8672 003	2P PIN JACK (FG)		
	JK201	204 8593 001	1P PIN JACK(OR,NI)		
	JK202	204 8421 005	MINI JACK		

	Ref. No.	Part No.	Part Name	Remarks	New
	S601	212 0352 018	JOG-SHUTTLE		
	S604	212 5604 907	TACT SWITCH-TA(ALPS)		
	S608	212 5604 907	TACT SWITCH-TA(ALPS)		
	S612	212 5604 907	TACT SWITCH-TA(ALPS)		
	S616	212 5604 907	TACT SWITCH-TA(ALPS)		
	S623	212 0410 002	ROTARY ENCODER-JOG		
	T201	231 8063 009	PULSE TRANS		
	X101	399 0880 900	CSTLS32M0X53		
	X102	399 0595 004	X'TAL(8.4672MHZ)		
★		461 1159 003	FL SPACER		*

POWER SUPPLY UNIT ASS'Y

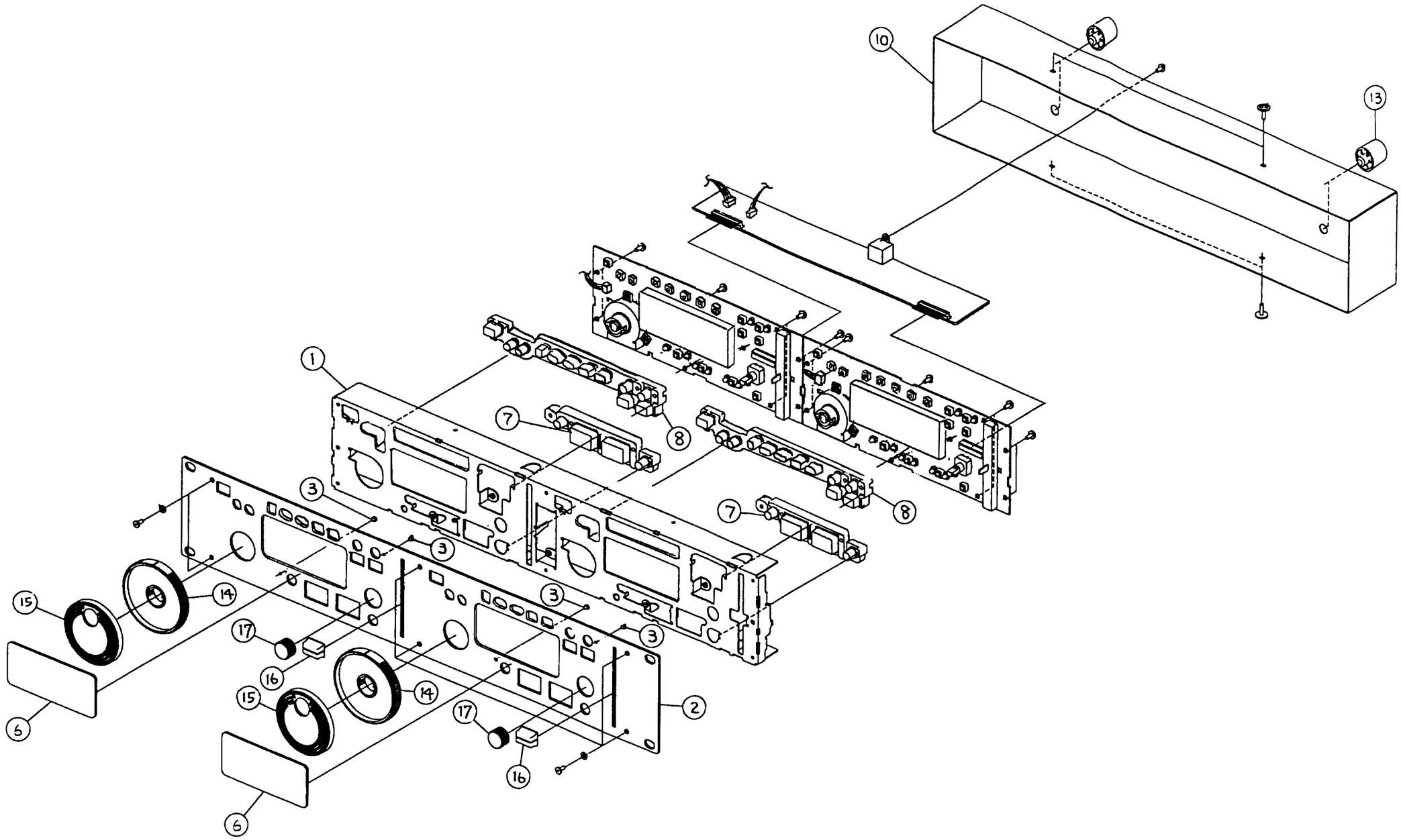
	Ref. No.	Part No.	Part Name	Remarks	New
SEMICONDUCTORS GROUP					
	IC301	263 0913 905	PST600C TP		
	IC302	262 2813 903	SN74AHCT08PW-EL2		
	IC303	263 1178 901	AN80L18RMS		
	IC308	263 1048 002	BA033T		
	IC309,310	263 0809 006	NJM7805FA(S)		
	IC311	263 0554 005	NJM7905FA		
	IC401	262 2813 903	SN74AHCT08PW-EL2		
	IC402	262 3275 003	TMP86CM47U-4R26		
	IC403	263 0913 905	PST600C TP		
	IC404	263 0809 006	NJM7805FA(S)		
	TR301	272 0083 004	2SB1185(E/F)		
	D302	276 0559 909	DAP202KT146		
	D303	276 0438 949	MA151WK (TAPE)		
	D304	276 0550 908	1SR139-200T-62		
	D305,306	276 0623 000	D3SBA20		
	D307	276 0550 908	1SR139-200T-62		
	D401	276 0559 909	DAP202KT146		
	D402	276 0438 949	MA151WK (TAPE)		
	ZD301	276 0760 921	MTZJ4.3B T77		
	ZD302	276 0762 916	MTZJ27B T77		
	LD301,302	393 9627 904	SEL1410E(TP3)		
	LD303	393 9543 907	SLR-325VC (RED) TAPE		
RESISTORS GROUP					
	R301	247 2006 915	RM73B--271JT		
	R302	247 2007 943	RM73B--102JT		
	R303	247 2018 903	RM73B--0R0KT		
	R307	247 2009 983	RM73B--103JT		
	R308	247 2003 947	RM73B--220JT		
	R309	247 2007 943	RM73B--102JT		
	R310	247 2003 947	RM73B--220JT		
	R311	247 2010 985	RM73B--273JT		
	R312	247 2008 942	RM73B--272JT		
	R313,314	247 2009 983	RM73B--103JT		
	R318,319	247 2006 962	RM73B--680JT		
	R320	247 2005 903	RM73B--101JT (1608)		
	R401,402	247 2007 943	RM73B--102JT		
	R403,404	247 2003 947	RM73B--220JT		
	R405,406	247 2018 903	RM73B--0R0KT		
	R407,408	247 2003 947	RM73B--220JT		
	R409	247 2009 983	RM73B--103JT		
	R410,411	247 2003 947	RM73B--220JT		
	R412	247 2018 903	RM73B--0R0KT		
	R413	247 2007 943	RM73B--102JT		
	R414	247 2003 947	RM73B--220JT		
	R415	247 2007 943	RM73B--102JT		
	R416	247 2003 947	RM73B--220JT		
	R419	247 2007 943	RM73B--102JT		
	R420,421	247 2003 947	RM73B--220JT		
	R422	247 2007 943	RM73B--102JT		
	R425-428	247 2009 983	RM73B--103JT		

	Ref. No.	Part No.	Part Name	Remarks	New
	R429	247 2006 915	RM73B--271JT		
	R430-439	247 2009 983	RM73B--103JT		
	R441-449	247 2009 983	RM73B--103JT		
	R458	247 2009 983	RM73B--103JT		
CAPACITORS GROUP					
	C301-310	257 0512 903	CK73F1E104ZT		
	C311	254 4536 944	CE04W1A331MT SMG/RE3		
	C312	257 0509 929	CK73B1H102KT		
	C313	257 0512 903	CK73F1E104ZT		
	C314	254 4538 942	CE04W1C101MT SMG/RE3		
	C315	257 0512 903	CK73F1E104ZT		
	C316	254 4535 929	CE04W1J470MT SMG/RE3		
	C317-320	257 0512 903	CK73F1E104ZT		
	C322	257 0512 903	CK73F1E104ZT		
	C323-327	254 4536 931	CE04W1A221MT SMG/RE3		
	C328	254 4538 955	CE04W1C221MT SMG/RE3		
	C329	254 4540 707	CE04W1J331MC SMG/RE3		
	C331-335	257 0512 903	CK73F1E104ZT		
	C336	254 4442 711	CE04W1C103MC(SMG)		
	C337,338	254 4539 718	CE04W1C222MC SMG/RE3		
	C343	253 8022 707	CK45F2EAC103MC		
	C344,345	257 0512 903	CK73F1E104ZT		
	C346	254 4541 942	CE04W1E101MT SMG/RE3		
	C401	257 0512 903	CK73F1E104ZT		
	C402	257 0501 901	CK73B1H103KT (1608)		
	C403	257 0509 929	CK73B1H102KT		
	C404	254 4536 931	CE04W1A221MT SMG/RE3		
	C405	257 0512 903	CK73F1E104ZT		
	C406	254 4302 958	CE04W1A470MT(SRE)		
	C407-410	257 0512 903	CK73F1E104ZT		
	C412	254 4538 955	CE04W1C221MT SMG/RE3		
	C413,414	257 0512 903	CK73F1E104ZT		
	C415	254 4536 931	CE04W1A221MT SMG/RE3		
	C416	257 0512 903	CK73F1E104ZT		
	C611	254 4536 931	CE04W1A221MT SMG/RE3		
	C612,613	257 0512 903	CK73F1E104ZT		
OTHER PARTS GROUP					
	CW41	203 6369 027	4P KR-DA CONN CORD		
	CW42	205 0343 045	4P CONN.BASE(KR-PH)		
	CW201	205 0850 046	20P CON BASE(BTMK-P)		
	CW231	205 0880 003	23P FFC CON.BASE		
	CX111	205 1135 003	8P MD BASE (F-S)		
	CY21	205 0581 001	2P VH CONNECTOR BASE		
	CY41	203 6369 027	4P KR-DA CONN CORD		
	CY42	205 0343 045	4P CONN.BASE(KR-PH)		
	CY111	205 1135 003	8P MD BASE (F-S)		
	CY201	205 0850 046	20P CON BASE(BTMK-P)		
	CY231	205 0880 003	23P FFC CON.BASE		
⚠	F601	206 1087 057	FUSE (ET0.4A)	E3	
⚠		206 1087 031	FUSE (ET0.25A)	E2	

	Ref. No.	Part No.	Part Name	Remarks	New
	FH305,306	202 0040 909	FUSE CLIP (TAPE)		
	L301	235 0159 007	PLH10AN3711ROP2B		
	S301	212 1176 015	POWER SWITCH(TV-5)		
	S302,303	212 5604 907	TACT SWITCH-TA(ALPS)		
	X401	399 0805 901	CSTLS16M0X53-A0		
★		513 3904 007	THERMAL LABEL(5X23)		
★		GEN6256-1	FUSE LABEL SUB ASS'Y	E2	

EXPLODED VIEW OF REMOTE CONTROL UNIT

Parts List



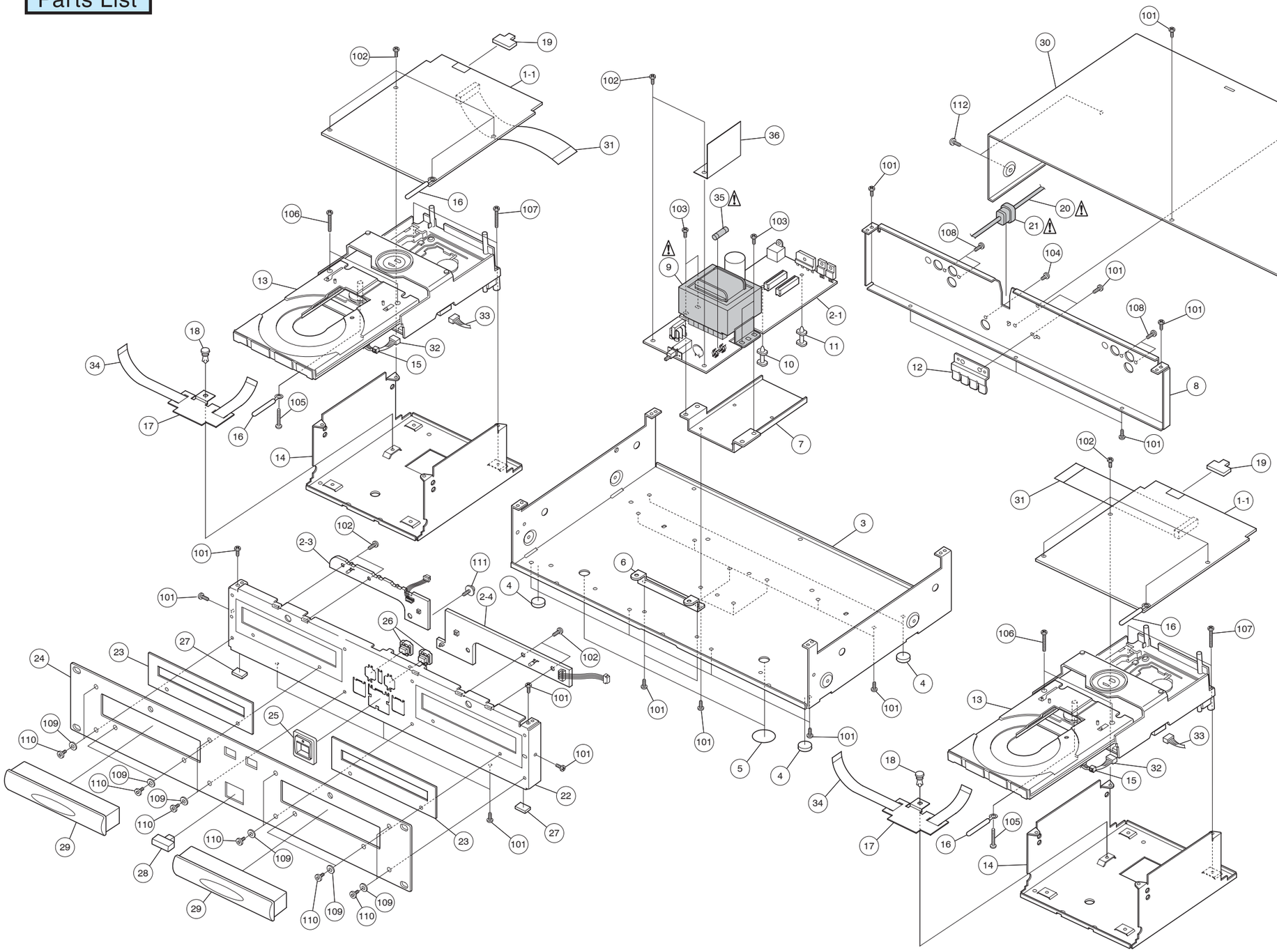
PARTS LIST OF EXPLODED VIEW (REMOTE CONTROL UNIT)

	Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
	1	441 1984 009	RC FRONT SUB PANEL		1	*
	2	144 2832 107	RC FRONT PANEL		1	*
	3	143 1072 004	LENS		4	
	4	475 1178 009	3W-B		6	
	6	146 2312 005	WINDOW		2	*
	7	119 0122 101	R.KEY (PLAY/PAUSE)		2	*
	8	119 0121 102	R.KEY (FUNCTION)		2	*
	10	105 1350 119	COVER		1	*
	13	104 0270 006	FOOT		4	
	14	112 0910 105	SHUTTLE RING		2	*
	15	112 0911 104	JOG DIAL		2	*
	16	113 1840 206	SLIDE KNOB		2	
	17	112 0820 017	KNOB (MARU)		2	
★		203 6407 031	4P KR-KR CON CORD		1	
★		203 6407 044	4P KR-KR CON CORD		1	
SCREWS						
	5	471 9050 020	3X6 FHHS MFZNII-B		6	
	9	473 7002 005	3X6 CBTS(S)-Z		20	
	11	471 8010 113	SPECIAL SCREW		4	
	12	471 1832 000	M3-SEMS SCREW(6W)		1	

EXPLODED VIEW OF CHASSIS AND CABINET

WARNING:
Parts marked with this symbol ⚠ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

Parts List



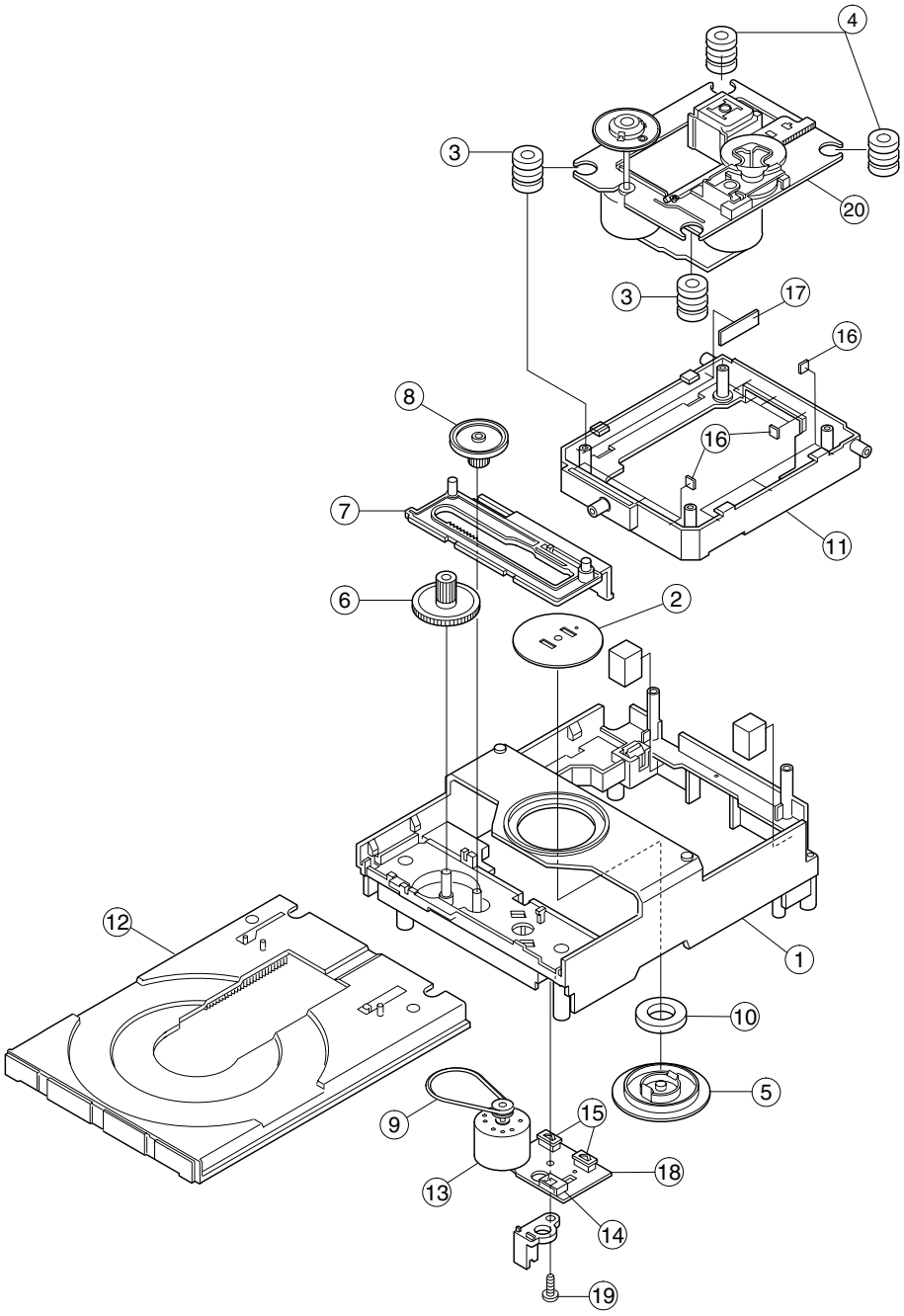
PARTS LIST OF EXPLODED VIEW (CHASSIS AND CABINET)

Note: The symbols in the column "Remarks" indicate the following destinations.
E3: U.S.A. model, Csnada model E2K : Koria model
E2: Europe model

	Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
	1	GU-3523	DRIVE P.W.B. UNIT		2	
	1-1		DRIVE P.W.B. UNIT		-	
	1-2		PANEL UNIT	for RC unit	-	
	2	GU-3524	POWER SUPPLY UNIT	E3	1	
		GU-3524A	POWER SUPPLY UNIT	E2, E2K	1	
	2-1		POWER UNIT		-	
	2-2		CPU UNIT	for RC unit	-	
	2-3		LED 1 UNIT		-	
	2-4		LED 2 UNIT		-	
	3	411 2033 000	CHASSIS		1	*
	4	461 0706 127	FOOT SHEET		2	
	5	513 3175 001	BLIND LABEL		2	
	6	412 4921 003	PWB BRACKET		1	
	7	412 4343 102	TRANS BRACKET		1	
	8	105 1431 009	BACK PANEL	E3	1	
	8	105 1431 012	BACK PANEL	E2, E2K	1	
⚠	9	233 6452 003	POWER TRANS		1	*
	10	412 2814 057	CARD SPACER (L=12)		1	
	11	412 2814 086	CARD SPACER (L=14.8)		1	
	12	412 9371 001	SPRING PLATE		1	
	13	337 0100 006	CD MECHA(CD11FTA3N)		2	
	14	412 5028 109	MECHA BRACKET		2	*
	15	445 0033 005	WIRE CLAMP BAND		2	
	16	445 8028 009	CORD HOLDER		4	
	17	461 1153 009	FFC COVER		2	*
	18	479 0003 025	PUSH RIVET		2	
	19	441 1985 008	HARD GASKET		2	*
⚠	20	206 2155 001	AC CORD W/CON.E3	E3	1	
⚠	20	206 2089 106	AC CORD W/CON.E2	E2	1	
⚠	20	206 2178 004	KOREA AC CORD VH	E2K	1	
⚠	21	445 0084 009	CORD BUSH	E3	1	
⚠	21	445 0056 008	CORD BUSH	E2, E2K	1	
	22	441 1983 000	FRONT SUB PANEL		1	*
	23	415 0910 004	BLIND SHEET		2	*
	24	144 2831 108	FRONT PANEL		1	*
	25	146 2275 003	P.SW KNOB GUIDE ASSY		1	
	26	119 0096 004	RUBBER KEY (C)		2	
	27	461 0740 002	SHEET		2	
	28	113 1689 001	P.SW KNOB		1	
	29	146 2311 006	LOADER PANEL		2	*
	30	102 0663 002	TOP COVER		1	*
	31	009 0143 032	23P FFC CABLE		2	
	32	203 8305 047	5P KR-KR CON.CORD	CX51	2	
	33	204 0307 062	6P KR-KR CON CORD	CX62	2	
	34	009 0241 031	16P FFC CABLE	CX161	2	
⚠	35	206 1087 057	FUSE (ET0.4A)	E3 F601	1	
⚠	35	206 1087 031	FUSE (ET0.25A)	E2, E2K F601	1	
	36	461 1161 004	PROTECT COVER	E3	1	
	109	475 1178 009	3W-B		12	
★		513 3826 004	E2 LASER CAUTION	E2, E2K	2	
★		415 0790 075	UL TUBE (14.3) BK	E2, E2K	1	
★		445 0033 005	WIRE CLAMP BAND	E2, E2K	1	
★		GEN6335	R.SHEET E3 SUB ASS'Y	E3	1	
★		GEN6356	R.SHEET E2 SUB ASS'Y	E2, E2K	1	
★		513 3564 007	RATING LABEL BASE		1	

	Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
★		513 3326 009	BAR CODE LABEL FILM		1	
★		GEN6154	MANUFAC.DATE SUB ASS	E3	1	
SCREWS						
	101	473 7015 018	3X8 CBTS (S)-B		30	
	102	473 7002 005	3X6 CBTS(S)-Z		14	
	103	473 7004 003	4X8 CBTS (S)-Z		4	
	104	471 3303 029	3X6 CBS-B		1	
	105	473 7508 017	3X10 CBTS (P)-B		2	
	106	473 7032 004	3X25 CPTS(S)-Z		4	
	107	473 7033 003	3X32 CBTS-S (B)		4	*
	108	477 0064 107	FIXING SCREW		4	
	110	471 9050 020	3X6 FHHS MFZNII-B		12	
	111	471 8010 100	SPECIAL SCREW		1	
	112	477 0263 005	3P. SWELLING SCREW		4	

EXPLODED VIEW OF CD MECHANISM UNIT (CD11FTA3N)

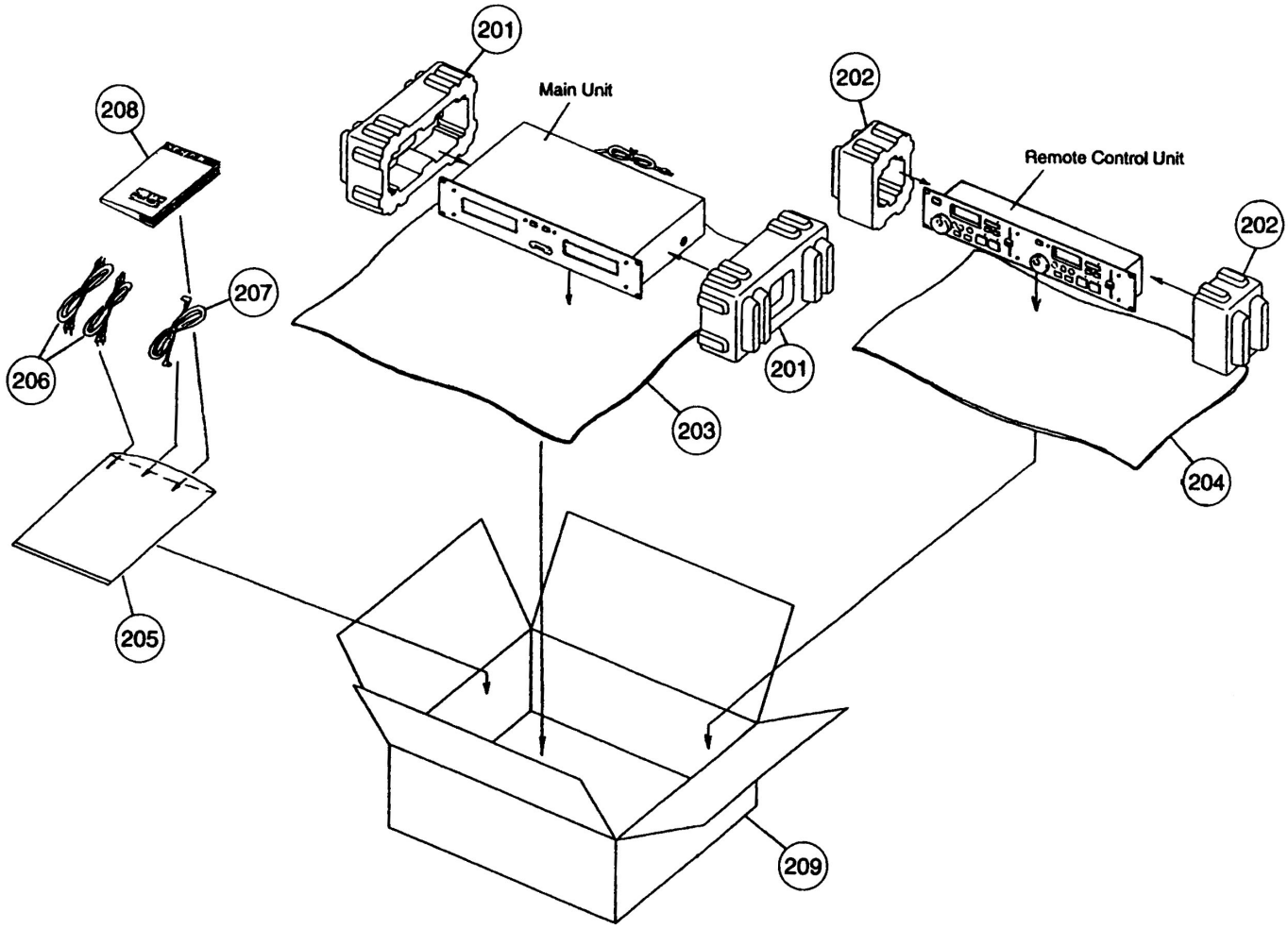


PARTS LIST OF CD MECHANISM UNIT

Ref. No.	Part No.	Part Name	Remarks	Q'ty
1	964 0009 006	Frame chassis		1
2	964 0009 103	Magnet plate		1
3	964 0009 200	Rubber cushion		2
4	964 0009 307	Rubber cushion		2
5	964 0009 404	Magnet holder		1
6	964 0009 501	Drive gear		1
7	964 0009 608	Slide gear		1
8	964 0009 705	Pulley gear		1
9	964 0009 802	Square belt		1
10	964 0009 909	Magnet		1

Ref. No.	Part No.	Part Name	Remarks	Q'ty
11	964 0010 008	Mecha lifter		1
12	964 0010 105	Loading table		1
13	964 0010 901	Loading motor		1
14	964 0010 202	5P Plug		1
15	964 0010 309	Push switch 2-1		2
16	964 0010 406	Cushion		9
17	964 0010 503	Cushion		2
18	964 0010 600	Motor P.W.B.		2
19	964 0010 707	Screw 3×8 SCR S-TPG BIN		1
20	964 0011 007	Mecha DA11T3CN		1

PACKING VIEW

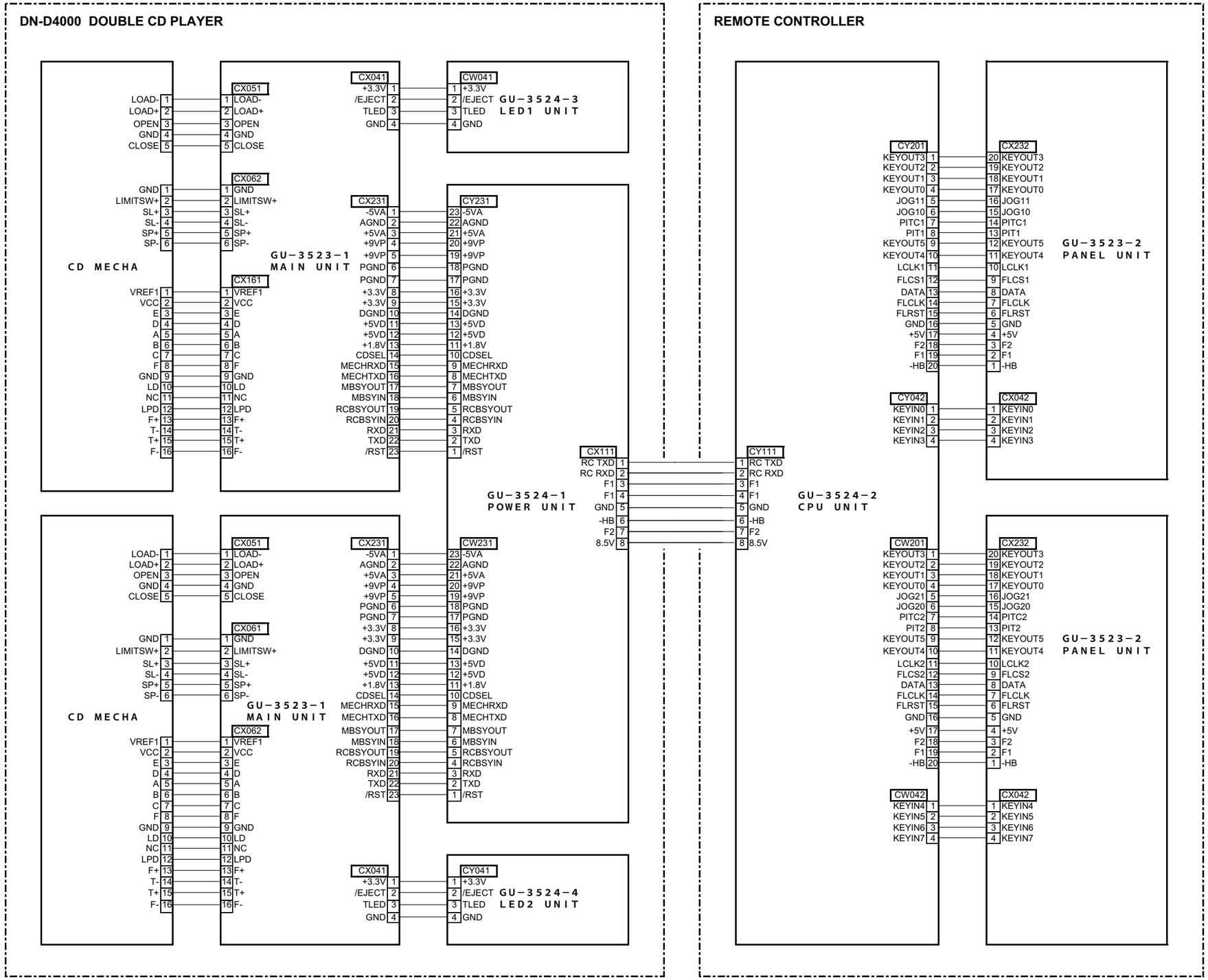


PARTS LIST OF PACKING & ACCESSORIES

Note: The symbols in the column "Remarks" indicate the following destinations.
E3: U.S.A. model, Csnada model E2K : Koria model
E2: Europe model

	Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
	201	503 1001 507	CUSHION		2	
	202	503 1010 404	CUSHION (RC)		2	
	203	505 0102 092	STYLEN PAPER		1	
	204	505 0102 021	STYLEN PAPER		1	
	205	505 0038 030	POLY COVER		1	
	206	203 2360 004	2P PIN CORD		2	
	207	204 2869 016	8P MD CON.CORD(L)		1	*
	208	511 4031 009	INST. MANUAL		1	
	209	501 2237 002	CARTON CASE		1	
★		515 0945 007	WARRANTY (COM.)	E3	1	
★		515 0923 207	S.S.LIST COM.(EX)		1	
★		-	CONT.CARD(L)		1	
★		-	BAR CODE LABEL		1	

WIRING DIAGRAM



NOTE FOR SCHEMATIC DIAGRAM

WARNING:
Parts marked with this symbol ⚠ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

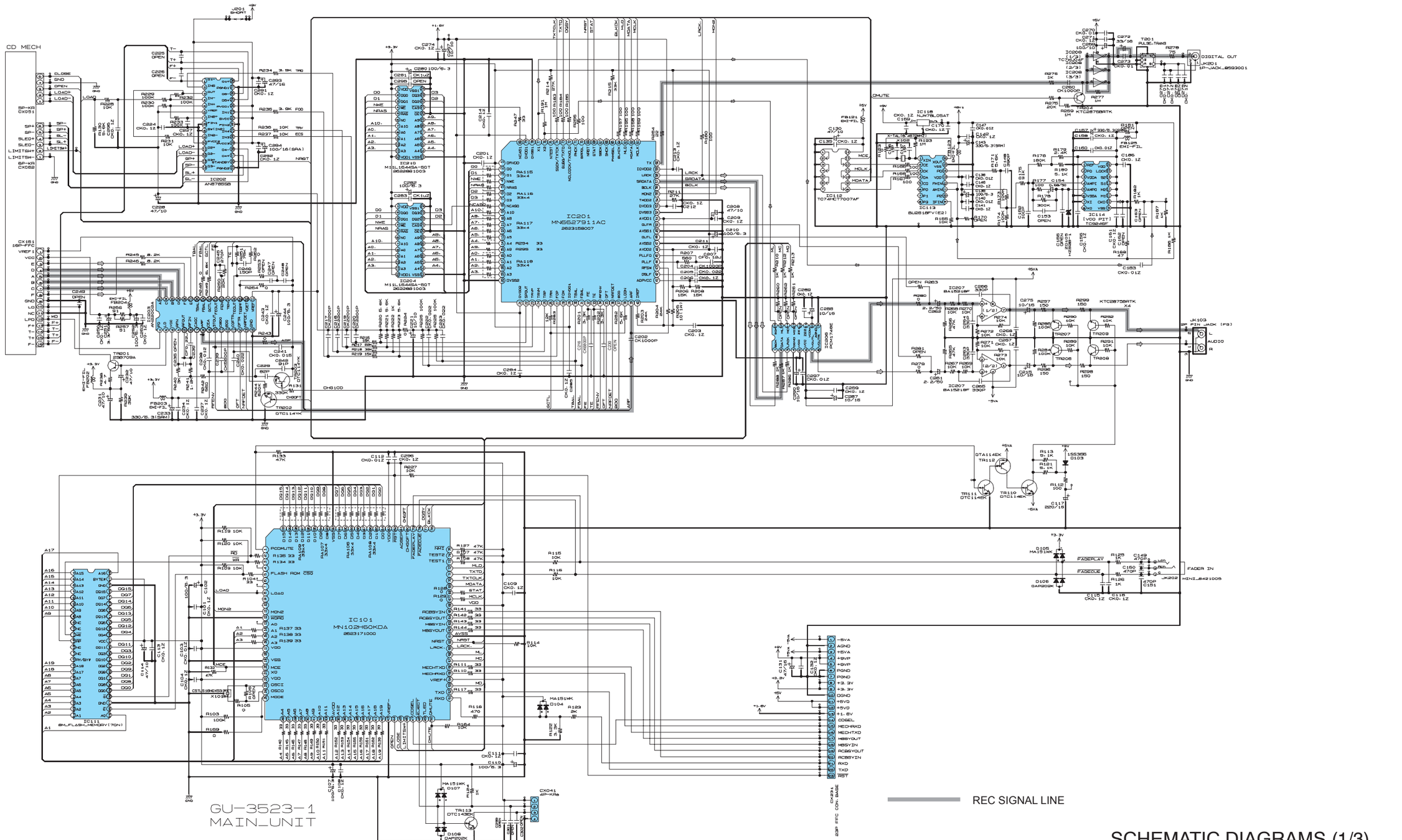
NOTICE
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM
M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD.
P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

配線図について

⚠ 印の部品は安全を維持するために重要な部品です。
従って交換時は必ず指定の部品を使用してください。

注）1. 指定なき抵抗値は　、kはk　、MはM　を示す。
2. 指定なきコンデンサーの値はμF、pはpFを示す。
3. 各部の電圧は無信号の値を示す。
4. この配線図は基本配線図です。改良等のため変更することがありますのでご了承ください。

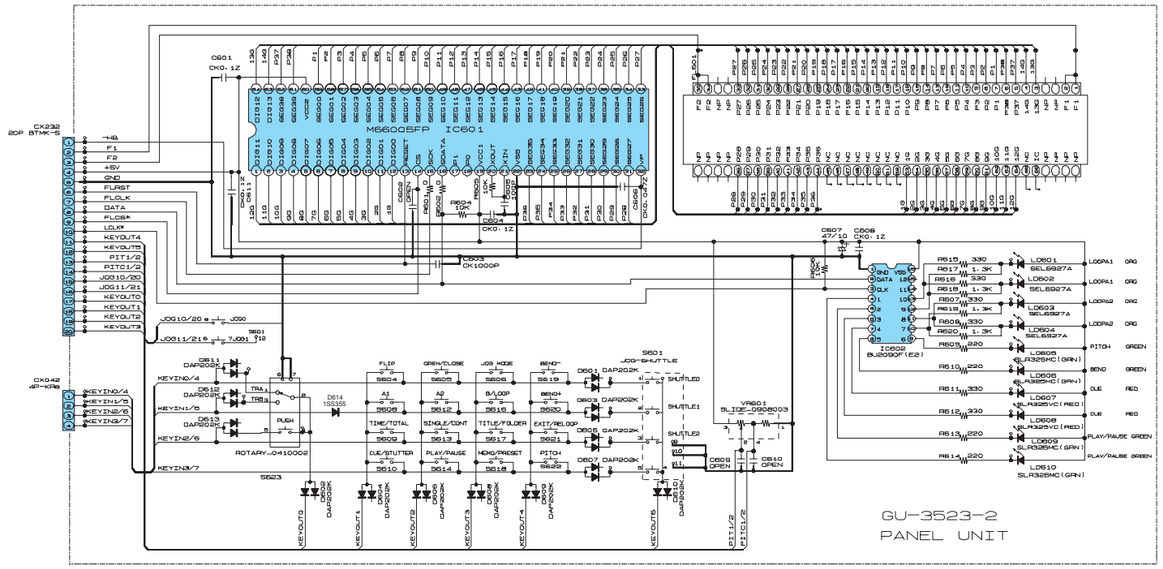
SCHEMATIC DIAGRAMS (1/3)



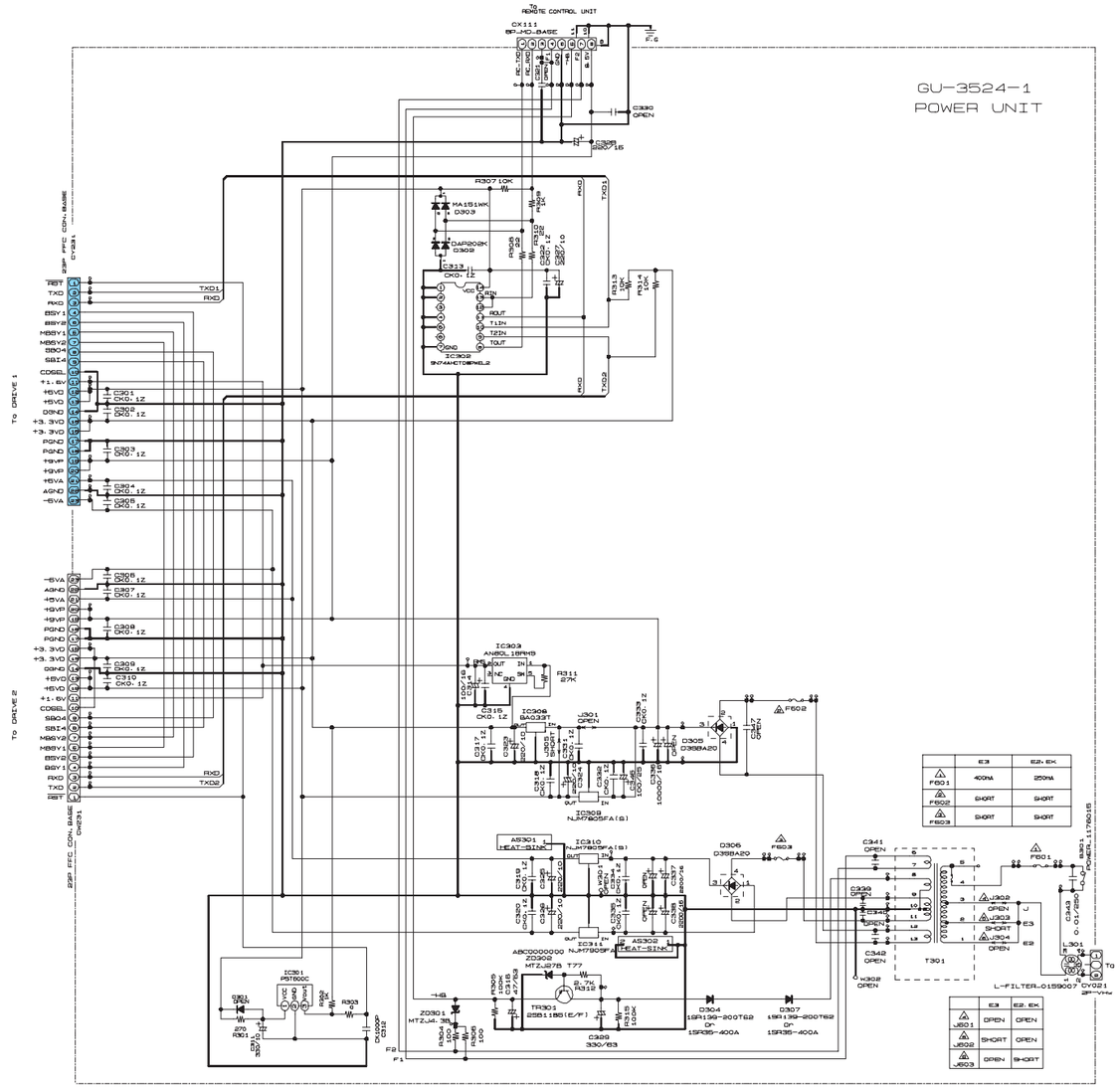
SCHEMATIC DIAGRAMS (1/3)

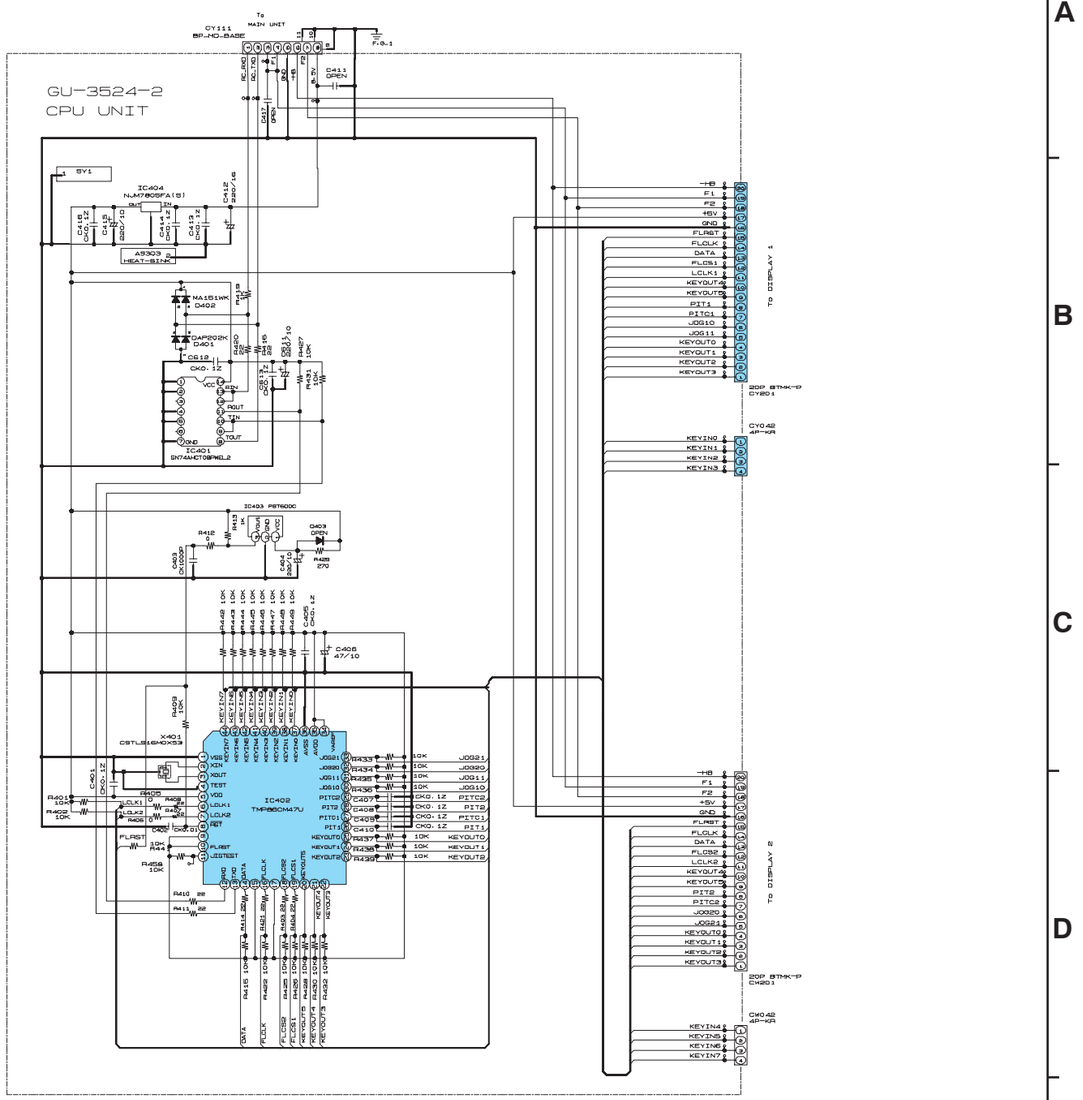
GU-3523-1

SCHEMATIC DIAGRAMS (2/3)



SCHEMATIC DIAGRAMS (3/3)





SCHEMATIC DIAGRAMS (3/3)

GU-3524-1
GU-3524-2
GU-3524-3
GU-3524-4